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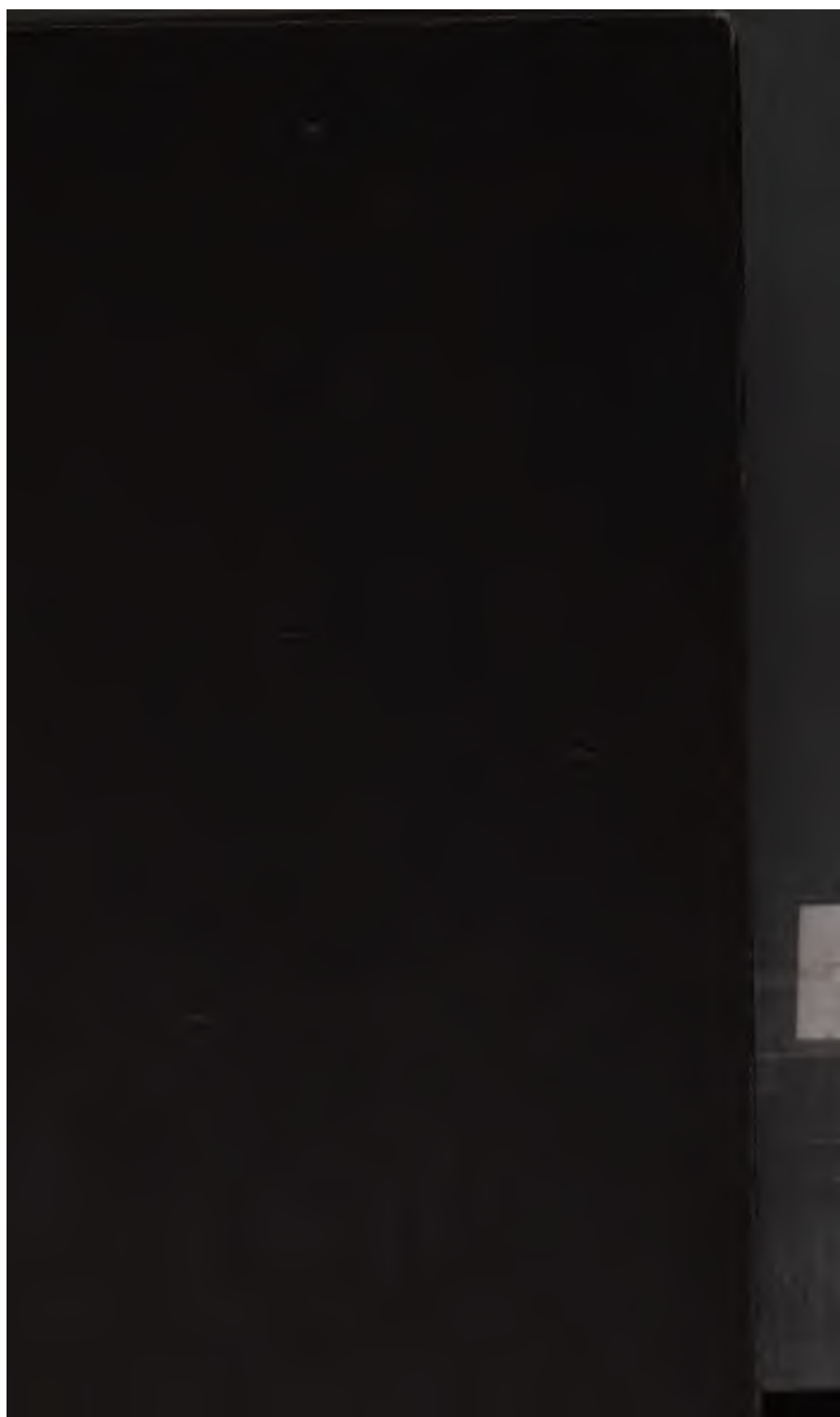
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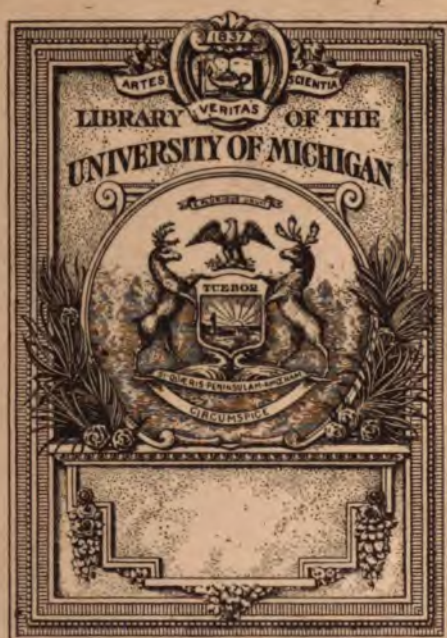
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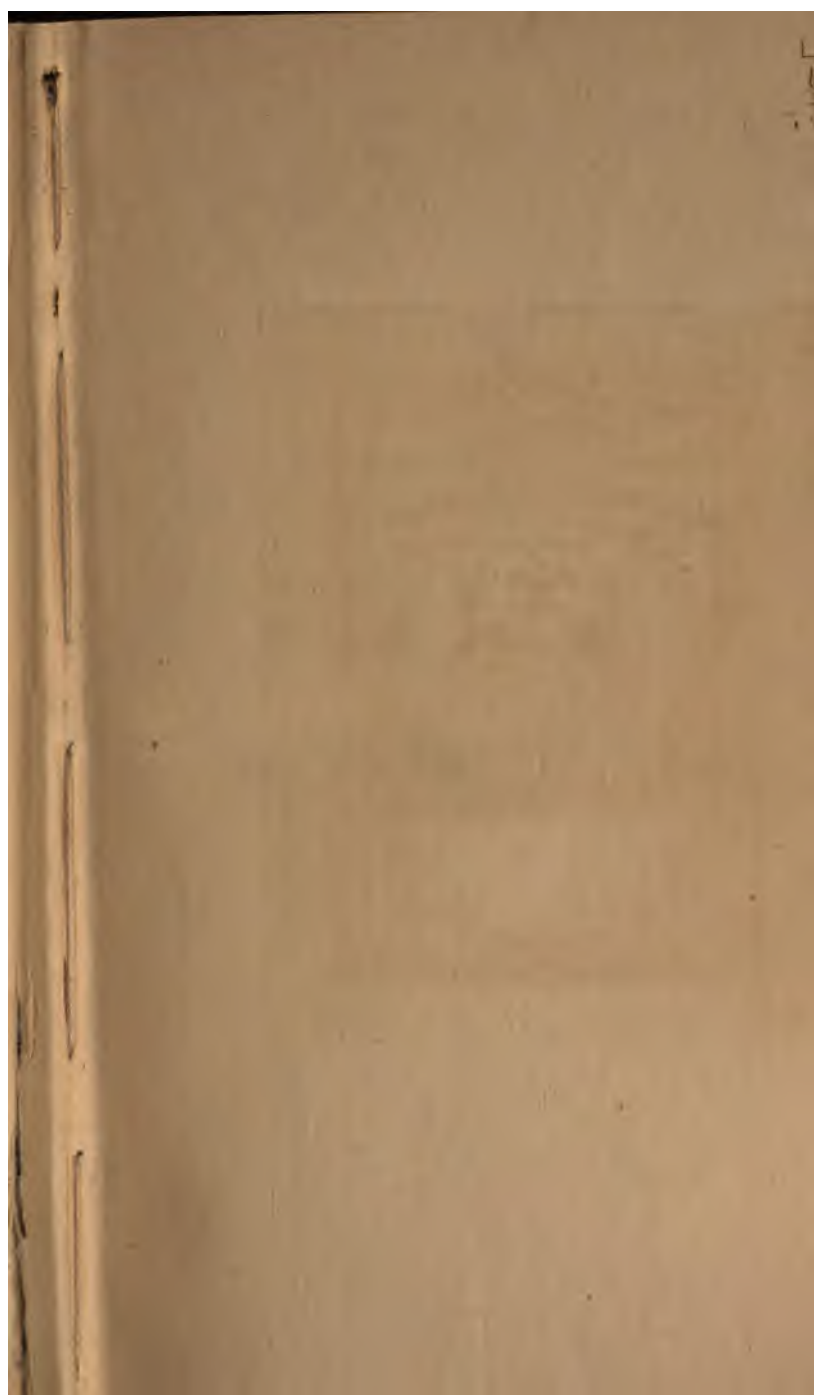
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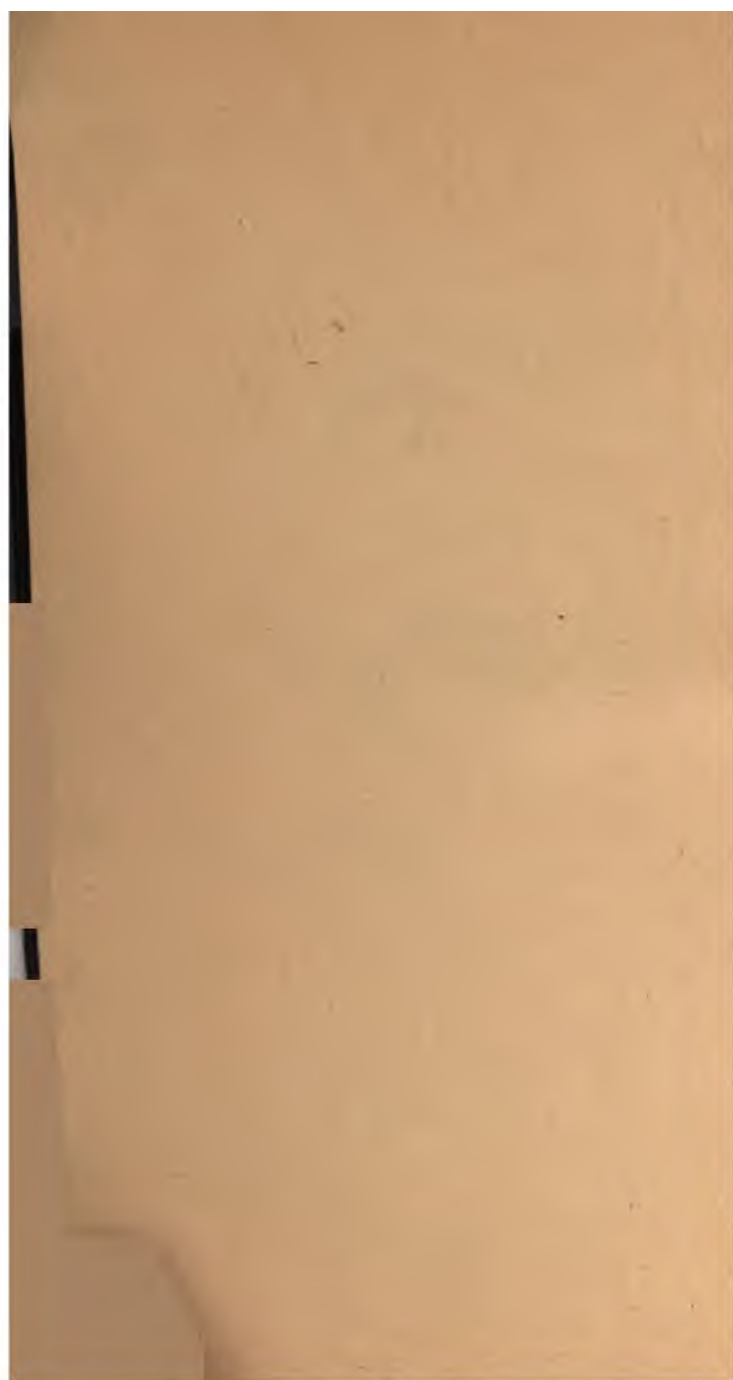
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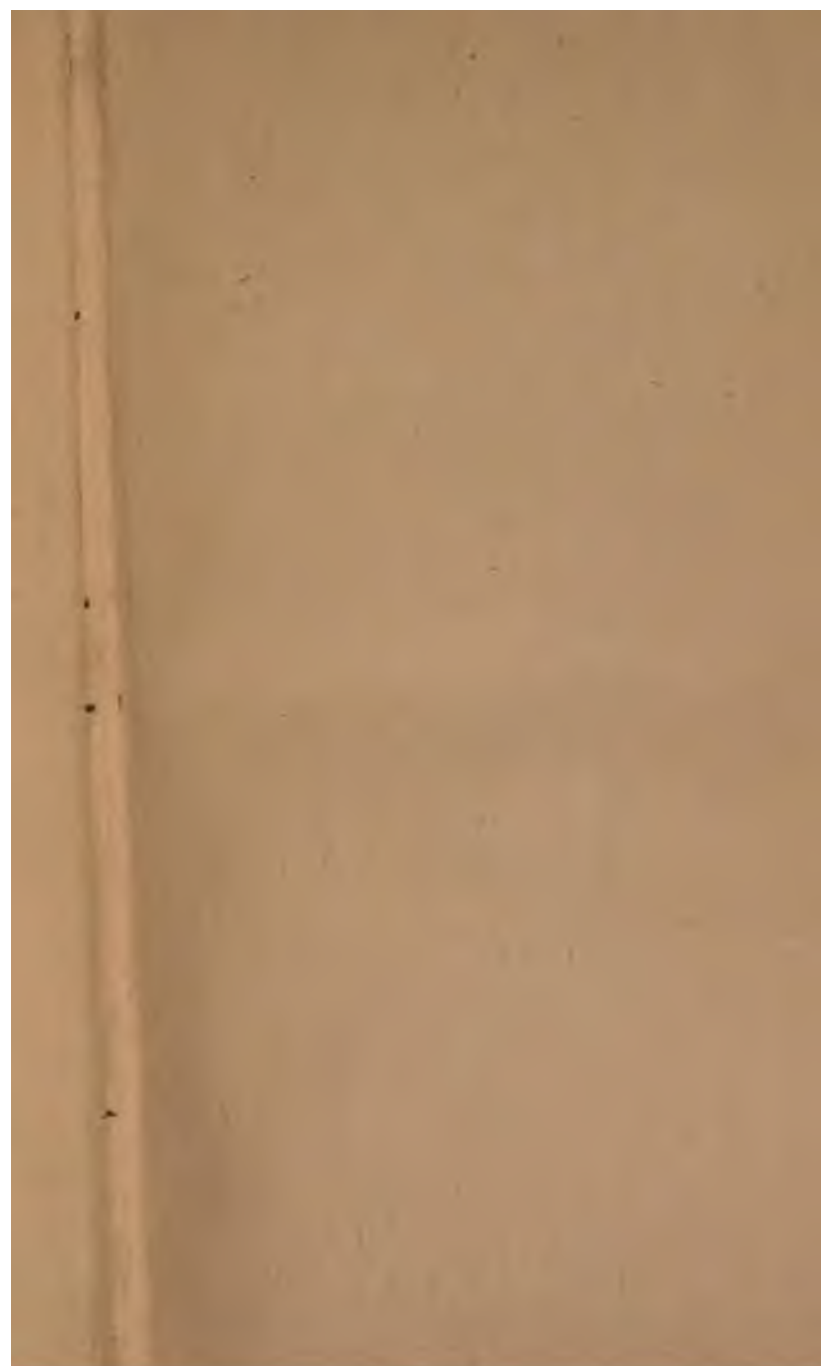
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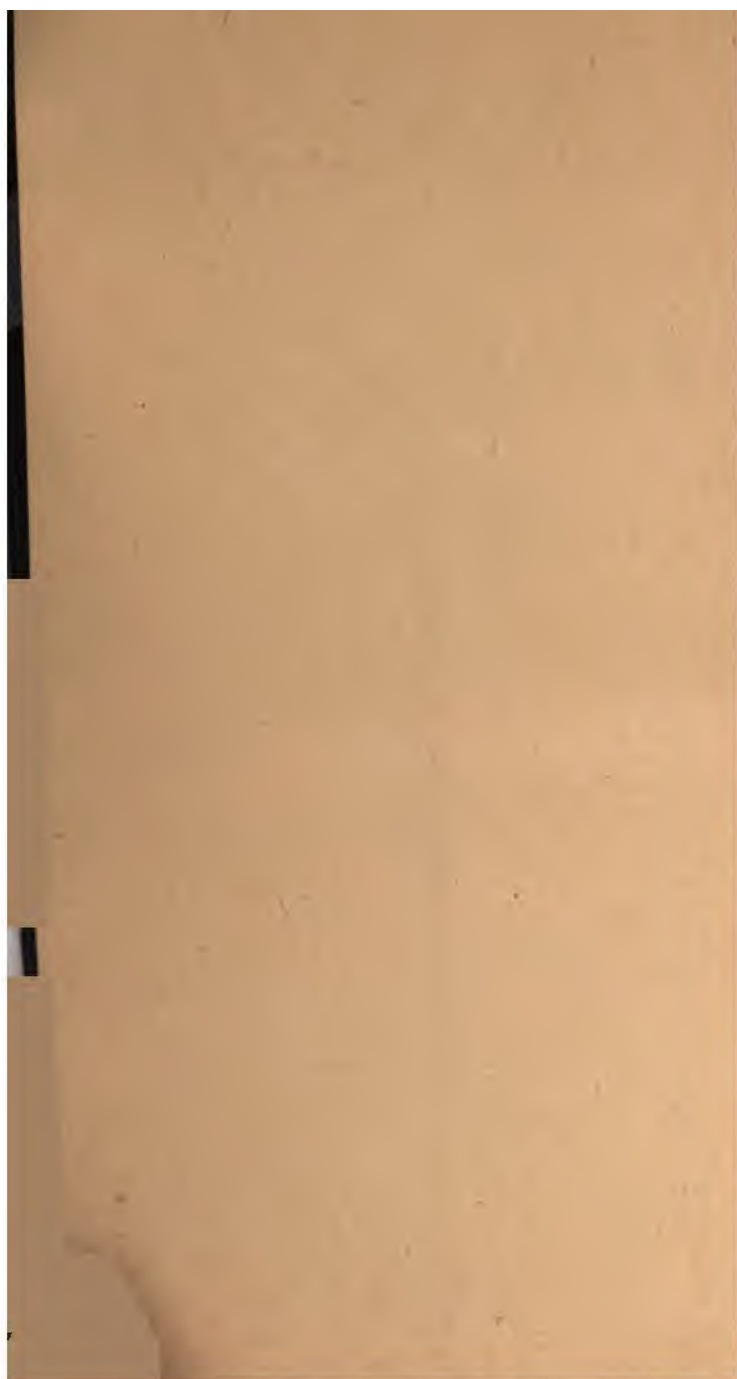












OUTLINES
OF
PHILOSOPHICAL EDUCATION.

“ Ac, sicut aves ad volatum, equi ad cursum, ad sævitiam feræ gignuntur ; ita nobis propria est mentis agitatio atque sollertia, unde origo animi celestis creditur.”

QUINCT. Institut. Orator. Lib. I. Cap. I.

“ Je voudrois que *le Paluel* ou *Pompée*, ces beaux danseurs de mon temps, nous apprissent des caprioles, à les voir seulement faire, sans nous bouger de nos places, comme ceux-cy veulent instruire nostre entendement, sans l'esbranler : ou qu'on nous apprist à manier un cheval, ou une pique, ou un Luth, ou la voix, sans nous y exercer : comme ceux icy nous veulent apprendre à bien juger, et à bien parler, sans nous exercer à parler ny à juger.

Essais de MONTAIGNE Liv. 1. Chap. 25.

“ Voicy mes leçons : celui-là y a mieux profité, qui les fait, que qui les sçait.”

Ibid.

16367.

OUTLINES
OF
PHILOSOPHICAL EDUCATION,
ILLUSTRATED BY THE
METHOD OF TEACHING
THE LOGIC CLASS
IN THE
UNIVERSITY OF GLASGOW;



**TOGETHER WITH OBSERVATIONS ON THE EXPEDIENCY OF EXTENDING
THE PRACTICAL SYSTEM TO OTHER ACADEMICAL ESTABLISHMENTS,
AND ON THE PROPRIETY OF MAKING CERTAIN ADDITIONS TO THE
COURSE OF PHILOSOPHICAL EDUCATION IN UNIVERSITIES.**

By GEORGE JARDINE, A. M., F. R. S. E.,
PROFESSOR OF LOGIC AND RHETORIC IN THAT UNIVERSITY.

SECOND EDITION, ENLARGED.

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P R E F A C E.

8-2-32

Re-classed

THE Author of the following Outlines has long been of opinion that philosophical education, as it is generally conducted in our universities, is too much confined to the mere communication of knowledge ; and that too little attention is bestowed on the formation of those intellectual habits of thinking, judging, reasoning, and communication, upon which the farther prosecution of science, and the business of active life almost entirely depend. He is fully sensible of the genius, the knowledge, and the eloquence, which have been displayed in the public lectures delivered by many professors in our universities,—some of whom, during the last century, have attained to the

highest rank in their respective departments ; but still he cannot help thinking that little has been done to generate, in the student, that activity of mind, and that facility of applying his intellectual powers, which ought to be the great object of all education.

The communication of knowledge is indeed necessary to furnish suitable materials for the exercise of the mental faculties ; and, perhaps, with a few students, whose minds are easily awakened to scientific pursuits, little else may be required. But this can only apply to a very small proportion indeed of those who enter upon a course of philosophical education ; and, even with regard to them, nearly the same advantage may be derived from the judicious and systematic perusal of the writings of ancient and modern philosophers, as from merely attending a course of lectures.

It has been the object of the author, who has been employed for the long period of fifty years in the department of the first philosophy class in the uni-

versity of Glasgow, to endeavour, as much as possible, to remedy this defect; and while he has, in the course of his public lectures, explained the first principles of the philosophy of the human mind, he has uniformly accompanied these lectures with a system of active discipline on the part of his students, with a view to invigorate, and improve, the important habits of inquiry and of communication.

These Outlines, accordingly, consist of two parts : —the first exhibits a view of the lectures which are delivered to the students; in which the author does not lay claim to the merit of any new discoveries in the science of mind, but has endeavoured to select those subjects which seemed most adapted for the employment of youth, at the commencement of their philosophical studies. Accordingly, he has not confined himself to the *art of logic*, or to any one department of knowledge, but has endeavoured to lay before his students, in a simple and intelligible form, the elements of the science of mind, with an analysis of the different intellectual powers, in the

order of their connexion and dependence,—the theory of language, as illustrative of human thought,—the principles of taste and criticism,—and the means of improving the powers of communication by speech and writing, as exhibited in the best models of ancient and modern composition.

The second part—which, to the author, appears by far the most useful department of his labours—contains an account of the practical system of discipline to which the students of this class are regularly subjected, for the purpose of acquiring habits of inquiry and communication. This consists, *first*, of an account of the mode in which the daily examination is conducted; and, *secondly*, of the exercises which are regularly executed by the students, and submitted to the criticism of the professor. Neither in this part does the author claim the merit of any new discovery; because the principles on which he proceeds have been long known: but he is not aware of any public seminary, where a system of practical exertion, on the part of the students,

has been enforced to such an extent as that to which he has endeavoured to carry it.

The author was induced to publish these Outlines by the suggestion of some of his pupils, who were pleased to express their conviction of the advantage which they had derived from this mode of instruction ; and also by the hope that, imperfect as they are, they may perhaps be the means of directing the attention of the public to the important subject of academical education. The long experience which he has had in the business of teaching, while it has made him fully aware of several defects in the general system of academical education, has emboldened him to speak of these defects with more freedom, perhaps, than he was entitled to use, considering the genius and ability of many of those entrusted with the instruction of youth, in our public seminaries. But, as he has not been actuated by any desire of censuring particular individuals, or particular seminaries, he trusts that, in the strictures which he has occasionally ventured to make upon the general objects of education, it will not be supposed that

he is insensible to the merits of our academical establishments.

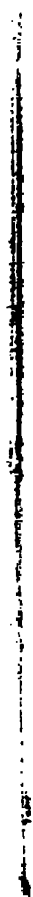
In this second edition, the author has made several alterations, which he hopes will be considered as material improvements, when compared with the former impression of this work.

The approbation which the system of practical education has received from the public, has encouraged him to propose an extension of its principles to three additional classes, which in his estimation appear necessary for completing the course of professional study. He has ventured to recommend, that professors should be appointed to give lectures on the philosophy of history, on political economy, and on the improvement of eloquence considered as an art. The author has stated, at considerable length, his reasons for the introduction of these important branches into the course of general education; the principal of which is, that they have become of late years so very closely connected with the affairs of life, and with the management

of public business, that the knowledge of them is quite indispensable for qualifying young men of rank and condition to discharge the various duties to which their station in life is likely to call them.

Of the great number of pupils who have passed through the first philosophy class in the university of Glasgow, during the last fifty years, many are now advanced to high and respectable situations. It has been a great gratification to the author of these Outlines, to look back upon the early indications of talent which they exhibited while under his care; and to understand, that not a few of them reflect with pleasure upon the occupations in which they were then engaged; and ascribe, in some degree, their advancement in life, to the active and industrious habits, which it is the object of these Outlines to recommend and to enforce.

GLASGOW COLLEGE, }
Feb. 1st, 1825. }



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ON THE COURSE
OF
PHILOSOPHY IN UNIVERSITIES.

INTRODUCTION.

THE ancient division of philosophy into physics, ethics, and logic, probably suggested the order of teaching which has long been followed in the universities of Europe; and, in this arrangement, the first place was assigned to logic; because it was considered as an instrument of a peculiar kind, by the skilful application of which, all other knowledge, whether of matter or of mind, was to be acquired.

The principal universities in Europe, it is well known, were founded during the reign of the scholastic philosophy, which consisted of such a mixture of the doctrines and opinions of the ancient philosophers, as it was possible to derive from corrupt copies and imperfect translations, of their works. To these

were added the numerous theological contro-
versies which exercised the ingenuity, and employed
barbarous style, of the writers in the middle
ages, and, as the chief object of education was to
prepare young men for the service of the church, the
scholastic system, which has just been described, was
the subject of study, in the schools of cathedrals
and of monasteries, as well as in other re-
sidential houses.

Although, in the earlier ages of Christiani-
ty, the doctrines of Plato were allowed to maintain a
great authority with those of Aristotle, yet, upon the
revival of learning in Europe, (more correctly
because the ancient authors having been previously dis-
credited,) it was found that the works of the latter phi-
losopher had obtained an almost exclusive pos-
session of the schools; and this preference is not, per-
haps, surprising, when it is recollected that the works
of this celebrated character embrace almost every
subject of human knowledge—physics, metaphysics,
ethics, logic, rhetoric, natural history, political
economy, criticism. On these various and interesting
branches of science he discovers, too, a greater de-
gree of acuteness, combined with a sound and discrimi-
nating judgment, than any other of the Greek philoso-
phers, and his several treatises having been, at an early
period, translated into Latin, the technicalities of the
scholastic system, his *forms, essences, entities, predicaments, categories*, became very soon incorporated with the
whole mass of scholastic learning. His Ar-

for the reasons already mentioned, were held in particular estimation, and sedulously cultivated by all who aimed at academical distinction.

That logic, at a particular period, and from particular circumstances, should have been cultivated more than any other art or science, is not perhaps very wonderful ; but that it should have taken such a hold of the minds of men as in a great measure to preclude all other studies, and to constitute the chief occupation of the learned, is certainly a singular phenomenon in the history of literature. It may not, therefore, be uninteresting to point out some of those circumstances which are supposed to have originally led to this universal reception of Aristotle's logic ; as well as to the continuance of its authority, in certain academical establishments in our own times, long after the causes, now alluded to, have ceased to exist.

The ancient history of the church informs us, that considerable differences of opinion, as to doctrine and ritual observances, subsisted even among the primitive Christians. In the beginning of the sixteenth century, however, when letters had revived, and the Reformation had made some progress, the topics of religious controversy were greatly multiplied: and, as these topics, at the era in question, were always more or less associated with speculations of a metaphysical nature, the addition thus made to the number of philosophical disputes, formerly agitated, not only opened a wider field for the exercise of the dialectician,

but suggested the expediency of paying more attention to the manner in which the process of attack and defence might be conducted. The combatants on either side, accordingly, recurred with increased earnestness to the study of Aristotle's Analytics, which, abounding in nice distinctions and definitions, in abstract notions, and general terms, supplied them with the means of maintaining an interminable disputation, without once entering into the merits of the subject upon which it turned : and thus the controversialist, although incapable of securing a decisive victory, was never in danger of an irreparable defeat. As soon, therefore, as the utility of the syllogism for this purpose was discovered, the knowledge of its form and structure, of *predicables*, of *categories*, of *figure* and *mood*, and the ready application of that instrument, to each particular case, became the chief object of study in all seminaries of learning. The young academician had no sooner entered college, than he was taught to arrange all his notions in strict logical order, and agreeably to the rules of art, for the purpose of syllogistic exercises. *Theses* on controvertible subjects were regularly proposed ; and the students, having taken their side, were encouraged by the masters to display their skill in the use of this intellectual weapon, and to call into action the various resources with which it supplied them. In process of time, the taste for this species of intellectual combat became very general. Disputations, no longer confined within the walls of colleges, were frequently carried on in public assemblies, convened for that

express purpose, and consisting of persons of the highest rank, in church and state. The immense numbers who attended these public exhibitions would appear to us altogether incredible, did we not recollect that we are speaking of occurrences which took place before the invention of printing; when such occasions furnished the only opportunity which the learned enjoyed for displaying their knowledge and talents, or which fell to the lot of the uninstructed for receiving information on philosophical and religious subjects. Like the knights errant of chivalry, or like the pugilists of our own days, the keener disputants of those times went from place to place in quest of adventures; challenging, every where, those who had obtained the highest reputation for success in syllogistic competitions.

The topics selected for those controversial disquisitions were naturally taken from the favourite studies of the age. A variety of abstract questions, on different subjects of philosophy, employed at that period the attention of monks and schoolmen, one of which was usually propounded for discussion: and, as the same views were constantly singled out for disputation, and the same points repeatedly maintained in their debates, the logicians of every district, according to the opinions which they severally supported, were naturally arranged in different parties, and distinguished by different denominations. One of the most celebrated of these philosophical controversies was that so long maintained between the *Nominalists* and

Realists, which, as every one knows, was carried on with so much violence and acrimony as actually to threaten the public peace, and on that account to call forth an edict from Louis II. of France, prohibiting all disputation on such inflammatory subjects. In short, the restless and vehement passions of mankind, which, in more recent periods, have found ample scope in political agitation and in religious controversy, were usually found, during the times in question, to exhaust their strength and gratify their malignity, in such abstracted and frivolous discussions as those to which we have alluded.

This literary phrenzy was still further increased by the distinctions and rewards which were conferred upon those who, as expert logicians, had signalized their zeal or ability in defence of the church. The titles of Bachelor, Master, and Doctor, remunerated their first exertions in support of the orthodox faith; whilst a long line of preferment, from the simple benefice to the papal chair, was opened up to the more ambitious, to stimulate their ardour in repelling the attacks of heretics, and in upholding the authority of the ancient belief. There is good reason to conclude, that the defenders of the Catholic church derived much assistance from the philosophy of Aristotle, particularly from their dexterous use of the syllogism. This opinion is strongly confirmed by the remarkable fact, that both Luther and Calvin exerted themselves to the utmost of their power, and with no small portion of acrimonious censure, to disparage

the Aristotelian doctrines, and even to fix the charge of Atheism upon their illustrious author.

From the operation of these causes, as well as for other reasons, of which it is unnecessary to give a minute detail, the philosophy of Aristotle, and particularly the doctrine of the syllogism, had, even at a date considerably prior to the reformation, been viewed with a degree of enthusiastic admiration, approaching to idolatry. There is, accordingly, no epithet of praise or of adulation which has not been lavishly bestowed on the talents of that writer; nor is there any object, in nature or in art, so exalted as not to have afforded to his admirers the ground of a comparison with his works, and even of a decided preference of those works to all created things. "The syllogism," it was said, "is the noblest and most useful invention ever discovered by man. It is the universal organ of science; the eye of intellect; and, like the Sun, the light of the world." Nay, one of the panegyrists of this intellectual instrument, a little more extravagant than the rest, not satisfied with comparing it to the Sun, boldly maintained its superiority to that glorious luminary:

" Utque supra Æthereos Sol aureus emicat ignes,
Sic artes inter prominet hæc Logica :
Quid? Logica superat Solem : Sol namque, diurno
Tempore, dat lucem, nocte sed hancce negat :
At Logicæ sidus numquam occidit ; istud in ipsis
Tam tenebris splendet, quam redeunte die."

The whole force of antithesis and alliteration was

employed in exalting and dignifying this favourite study. "est, ergo, ars artium, scientia scientiarum, organum organorum, instrumentum instrumentorum, ancilla, clavis, testa, murus philosophiæ, docendi dicendique magistra, veri falsique disceptatrix et judex." The encomiums, which were passed upon the philosopher himself, rose to an equal height above decency and common sense. "Que si, dans sa Physique, Aristote a parlé en homme, dans sa morale, il a parlé en Dieu; qu'il y a sujet de douter si, dans ses morales, il tient plus du jurisconsulte qui du prêtre; plus de prêtre qui du prophète; plus de prophète que de Dieu!" *Le Pere Pardies*. Averrois, one of the best as well as most devoted of his admirers, gravely tells us, "that Nature was not altogether complete till Aristotle was born; and that in him she received the finishing stroke, and could not advance farther."

Nor were this extravagant praise, and this boundless deference, confined to the mere scholar or professional commentator. On the contrary, the doctrines of Aristotle were very widely disseminated; and, what is more, were every where received with implicit confidence, by all ranks of society. Regarded as the surest guide to a sound faith, and as the best support of Christianity, the works of this author were, in some parts of Germany, actually read in the churches, and listened to by the people, with as much veneration as they were taught to feel of his writings. From this unnatural alli-

ance between the philosophy of Aristotle and the doctrine of revealed religion, the authority of the former, as might have been expected, became every day more extensive and irresistible; until, in process of time, the weight attached to his name had so much influence, in suspending the rights of conscience and of private judgment, that it was accounted nothing short of heresy to dispute any of his opinions. *Iipse dixit*; *Magister dixit*; effectually silenced discussion, and precluded all difference of sentiment, on religious or philosophical subjects. The effects of this blind admiration, in short, pervaded every department of literature and science; moulding the turn of thought, the structure of argument, and the general form of reasoning. The prose compositions of the period in question, are accordingly loaded with cumbersome technicalities, and endless distinctions without any difference; while the works of imagination are so deeply affected with the same spirit, as to present to the reader little else than versified metaphysics, or a personification of logical subtilties.

It was during this triumphant period of Aristotle's authority, that the plan of education in the principal academical establishments of Europe was reduced into some sort of a system; on which account, it is not surprising that the first place in it should have been given to his logic and metaphysics. Having once obtained this place in the scheme of public instruction, our ordinary views of human nature enable us to explain why, in certain circumstances, they

should have been permitted to retain their rank, as objects of human study, long after the causes to which they owed pre-eminence, had ceased to exist. It may not perhaps be so easy to account for the singular fact, that, even at the present day, the treatises just mentioned, are, in many seminaries of learning, allowed to hold an almost exclusive possession of the schools, during the principal part of the academical course.

It might indeed have been expected, upon the revival of learning in Europe, particularly after the publication of the *NOVUM ORGANUM*, which tended so greatly to shake the authority of Aristotle, that the unfitness of the Grecian Logic, for the purposes of rational education, and especially for training the minds of youth to scientific pursuits, would have instantly become apparent. It is well known, however, that, long after this period, and at a time when the Baconian method of investigation had been successfully exemplified by Newton and Locke, who followed closely the footsteps of their great master, no change in the system of philosophical instruction took place in any of the universities of Europe. The following, among other causes, may perhaps have contributed to produce these effects.

The Greek philosophy, in general, had been received in Europe with great veneration. It came from Attica, the mother of science, the land of heroes, & the theatre of splendid achievements. From that

spot emanated the first rays of that precious light, which, with increasing splendour, still continues to irradiate a great part of the habitable world. Nor was it only the sciences and arts, transported from thence into the European states, which laid the foundation for that authority and reverence of which we are now investigating the cause; but the language itself, in which these precious deposits had been preserved, by opening an immediate access to the valuable treasures of ancient literature, acquired a firm hold of the mind, even of general scholars; and thus became, in a very short time, a necessary part of academical education. During many centuries, too, after the first reception of the Greek philosophy in the western parts of Europe, there was no other system of knowledge which could be put in competition with it: and it must accordingly be admitted, that, even with respect to Aristotle, the preference, which was so decidedly manifested for his works, did not proceed altogether from prejudice. It is but justice likewise to that great man to observe, that his *Analytics*, although by no means entitled to the high praise of being the only standard by which truth is to be distinguished from falsehood, and the sole introduction to all other parts of human knowledge, contain, nevertheless, many things of unquestionable and permanent utility. Among these may be mentioned his several rules, at once so clear and precise, for distinction, definition, and division, which must ever constitute an essential part of every system of intellectual philosophy,—a portion of his work, of which succeeding writers

have very freely availed themselves, without always acknowledging their obligations. The syllogism itself, too, the great boast of ancient logic, certainly exhibits the best analysis of a single act of reasoning, which consists in the comparison of two things with a third: and although miserably calculated for promoting invention, or for advancing the interests of science, yet, from the regularity of its structure, and from the precise nature of the rules upon which it proceeds, it may often be very happily applied to express axiomatic truth, as well as to detect vague or inaccurate reasoning. Lord Bacon himself has, accordingly, admitted that the dialectic method of teaching was "professorial" or "magisterial," and favourable to an authoritative communication of undisputed knowledge.

But nothing, perhaps, contributed more to the continuance of the ancient logic and metaphysics, as a part of the academical course in our universities, than the practice of disputation already mentioned; which, while it formed an essential article among the things appointed to be taught in the schools, was universally regarded as the chief path to distinction and preferment among the more advanced students. Academical degrees could not be obtained unless the candidates had previously published, and defended a Thesis, according to the Aristotelian dialectics, in the presence of the university. Candidates for fellowships or professorships, were required to contend for these appointments in syllogistic disputation.

Bursaries or exhibitions were awarded on the same principle; and this mode of electing professors, continued in the university of Glasgow, till near the beginning of the last century.

Among the causes which contributed to retain the metaphysics and logic of Aristotle in the course of academical study, we ought also perhaps to regard the difficulty of substituting in their place any other more efficient system of instruction. The method of *induction* taught by Lord Bacon was chiefly applied by him to inquiries connected with natural philosophy; which, in the age of that great reformer, was esteemed, in a scientific point of view, greatly inferior in dignity and importance to the study of mind. Besides, had any attempt been made, at that period, to extend the application of the inductive philosophy to mental phenomena, there is every reason to suspect, that the pride of ancient science would have refused to stoop to the humble method of proceeding, by observation and experiment. The lofty pretensions, the general principles, and the undefined but magnificent conceptions of the old school, would, in all probability, have maintained their ground, in opposition to the innovating spirit of the *Novum Organum*; which, as is well known, began by divesting the pompous teacher of nearly all his acquirements, and by impressing upon the mind of the pupil that his own senses and reflection were the only sure guides to knowledge. But whatever truth there may be in these conjectures, nothing is more certain, than

that established methods of teaching in universities very soon take a firm hold of the minds of both teachers and scholars; the former considering themselves bound to maintain the order and discipline to which they themselves had been subjected, and which they have been in the habit of enforcing; while the latter naturally contract a prejudice in favour of the system according to which they were instructed, of the persons who taught them, and even of the place in which they received their education.

The retired life of academicians, which, in former times, amounted almost to a complete seclusion from the world, by producing habits of a peculiar cast, rendered them indifferent to the opinions which floated around them, and altogether inattentive to the progressive improvement of the times. The practice also, which was then general, of composing lectures in Latin, and of dictating to the students in the same language, gave a mysterious semblance of learning, to every thing which was taught; and contributed not a little, we may suppose, to conceal from common observation, and even from the masters themselves, the intrinsic defects of the system which they continued to pursue. Perhaps, too, considerations of an inferior nature had considerable influence in perpetuating, at a more recent period, the ancient discipline of the schools. New methods of teaching particularly when directed to new subjects of study necessarily require fresh efforts on the part of the teacher, new lectures, and new criticisms on b

and systems ; and, while teachers and pupils, from a natural indolence, willingly persuade themselves that their own methods are the best, their views are powerfully seconded, from without, by a numerous body of men, who, from a real or affected timidity, deprecate any alteration whatever in established usages.

Thus, the causes which gave rise to the revival of letters, and to the improvements of modern times, particularly in the science of human nature, were, every where, in constant operation, and had produced great changes in every department of life, long before they reached universities. Fortified by ancient foundations, by ancient statutes, and by ancient practice, these institutions persisted in their original plan ; heedless of complaint, and undisturbed by the increasing objections which were now openly directed against their contracted views, and their still more imperfect methods of teaching philosophy. As civilization advanced, and as the commercial intercourse of nations became gradually more extended, a new field of knowledge presented itself to the eye of the philosopher, holding out new inducements to the exertions of the ingenious and the enterprising ; and thus the defects of the prevailing system of education, and its total unfitness for the general purposes of life, became more strikingly apparent. But although these defects were clearly pointed out, and inventions and discoveries, arising from the improved method of philosophizing, were multiplied on every hand, neither example nor success had any influence on the

learned in universities, nor produced any alteration in their modes of teaching. "The improvements," says Doctor Smith, "which have been made in several different branches of philosophy, have not, the greater part of them, been made in universities, though some, no doubt, have. The greater part of universities have not been very forward to adopt those improvements after they were made; and several of these learned societies have chosen, for a long time, to be the sanctuaries in which exploded systems, and obsolete prejudices, found shelter and protection, after they had been hunted out of every corner of the world. In general, the richest and best endowed societies have been the slowest in adopting those improvements, and the most adverse to admit any considerable change in the established forms of education. Those improvements were more easily introduced into some of the poorer universities, in which the teachers, depending upon their reputation for the greatest part of their subsistence, were obliged to pay attention to the current opinions of the world." *Smith's Wealth of Nations.*

ON THE CHANGE IN THE METHOD OF CONDUCTING
THE FIRST CLASS OF PHILOSOPHY IN THE UNIVER-
SITY OF GLASGOW.

DURING the seventeenth century, various circumstances concurred to prove, both that the Aristotelian philosophy was itself declining in reputation, and also that the scholastic method of teaching was felt to be no longer suitable to the spirit of the times. About 1646 or 1647, complaints upon this head had reached the General Assembly of the Church of Scotland; upon which, this body of divines conceiving themselves to be invested with the right of superintending universities, as well as inferior schools, appointed commissioners to examine into the practical details of their several modes of teaching, with powers to remedy abuses of every kind. In one of the Acts, accordingly, of these commissioners, it is declared, " that the *dyting* (dictating) of long notes has, in time past, proved not only a hinderance to the necessary studies, but also to the knowledge of the text itself, and to the examination of such things as are taught; it is therefore sincerely recommended by the commissioners to the dean and faculty of arts, that the REGENTS (the professors who had the charge of educating the youth) spend not so much time in *dyting* of their notes; that no new lesson be taught till the former be examined; that every student have the text of Aristotle in Greek; and that the Regent first analyze the

text, *viva voce*, and thereafter give the sum thereof in writing." We may also mention in passing, that it was likewise proposed to the commissioners, by their reverend constituents, to introduce an uniform system of instruction into all the Scots universities; but this object, after much conference and discussion on the part of the commissioners, and an actual comparison of the several plans of teaching then in use, was afterwards abandoned, as being impracticable, or at least inexpedient, in the existing circumstances of the times.

A ROYAL VISITATION, which took place in 1727, was the means of introducing, into the COLLEGE of GLASGOW, the first radical reform in the method of teaching philosophy. Prior to this date, each professor conducted his pupils through the whole philosophical course; giving lectures in three successive years, on logic, ethics, and physics. One of the principal changes recommended by the royal visitors, on this occasion, consisted in restricting the professors of philosophy to a particular department. The former method was, no doubt, attended with some considerable advantages altogether peculiar to it; and accordingly, it still remains questionable with many persons, fully competent to form a judgment on such matters, whether the innovation now stated, was, every point of view, a decided improvement. While the primary object of a professor is not so much to extend the bounds of science, by original speculation of his own, as to communicate to youth elements

instruction, drawn from the works of others, he may not find much difficulty in making himself sufficiently master of all that is necessary to be taught, in each department; whilst, from an intercourse with his students, during three sessions of college, he has such an opportunity of becoming acquainted with their several talents and dispositions, as enables him to adapt, with every prospect of success, his mode of instruction to their respective capacities. If, in addition to this, we could have any ground for assurance, that the duties of a professor would always be discharged by able men, and zealous teachers, there could be no hesitation in pronouncing the ancient system decidedly superior to the modern; but, when, on the contrary, it is morally certain that professorial chairs will not always be filled by individuals so highly qualified, and, as men of ordinary talents may, nevertheless, by confining their attention to one particular field of study, not only acquire some eminence, but become very successful instructors, it is extremely probable, all things considered, that each branch of knowledge will be better taught by being intrusted to a separate professor. Besides, there is possibly some improvement to be derived from the opportunity, thus furnished to a young man, of observing and comparing different modes of communicating instruction; and, at all events, it is an advantage not entirely to be overlooked, that students should not during their whole academical course be confined to one teacher, but should have it in their power to attend the lectures of any distinguished professor, who

may happen at the time to adorn our seat of learning.

The improvements in this university, arising from the regulations introduced by the royal visitation, were greatly promoted by the appointment, which took place shortly afterwards, of more than one professor of singular zeal and ability. The first of these was Dr. FRANCIS HUTCHESON. This celebrated philosopher, whose mind was stored with the rarest gifts of learning, illustrated, with a copious and splendid eloquence, the amiable system of morality which is still associated with his name; producing thus the happiest effects, not only on his own students, but also on his colleagues, and infusing, at once, a more liberal spirit, and a greater degree of industry, into all the departments of teaching. Great obstacles, however, still remained. The professor of the first philosophy class, according to the practice of the times, continued to deliver his lectures in the Latin language; a method of instruction, which, although it must long have proved a great impediment to the ready communication of knowledge, on the part of the teacher, and to the reception of it on the part of the pupil, was not discontinued in this college till upon the following occasion.

In the year 1750, ADAM SMITH was appointed professor of logic; and, being rather unexpectedly called to discharge the duties of his office, he found it necessary to read to his pupils, in the Eng-

lish language, a course of lectures on rhetoric and belles lettres, which he had formerly delivered in Edinburgh. It was only during one session, however, that he gave these lectures; for at the end of it, he was elected professor of moral philosophy: and it was on the occasion of this vacancy in the logic chair, that EDMUND BURKE, whose genius led him afterwards to shine in a more exalted sphere, was thought of, by some of the electors, as a proper person to fill it. He did not, however, actually come forward as a candidate; and the gentleman who was appointed to succeed Dr. Smith, without introducing any change, as to the subjects formerly taught in the logic class, followed the example of his illustrious predecessor, in giving his prelections in English.

Nothing, certainly, can more retard the progress of science, and particularly of elegant literature, than the practice of teaching in a foreign language. Imperious convictions of utility have now altogether removed that obstacle to improvement; yet, such is the predilection for established usages, that several years after the period now alluded to, when the professor of law in this university began to deliver his lectures in the English language, the faculty of advocates complained of the innovation, and requested that the former practice of prelecting in Latin might be resumed. Now, however, a total change of opinion on this subject has taken place; and among no class of men was it more decidedly manifested than in the learned body here alluded to; a great number of

whom, almost immediately afterwards, repaired to Glasgow to pursue the study of law under the late celebrated PROFESSOR MILLAR, who delivered all his prelections in English.

This change, which was soon extended to all the other classes, was obviously unfavourable to the practice of scholastic disputation; and accordingly, from the time that the practice of lecturing in English was generally introduced, the public disputations gradually declined. All the terms and expressions, employed in these intellectual combats, were so closely associated with the use of the Latin language, that an attempt to dispute in our vernacular tongue, according to the forms of the Aristotelian logic, would not only have appeared extremely awkward, but what is worse, would have infallibly exposed the inanity of the discussion. The last instance of a degree in arts obtained by defending a Thesis in the public hall of this university, occurred in the year 1762; the only vestiges of the practice being now confined to the mode of conferring medical degrees, and, even in this case, it is in the option of the candidate whether he shall defend a Thesis publicly or not. A strict examination in private, by a committee of professors, followed up by a public examination before the *Senatus Academicus*, is justly esteemed a much more effectual method, of ascertaining the qualifications of candidates, than any trial of skill in the use of syllogistic mood and figure.

From the above period till the year 1774, when I

had the honour of being elected professor of logic, the subjects prescribed by the royal commissioners continued to be taught in that department in the following order.

The Class opened on the 10th of October (the annual commencement of the session, or term,) with reading and commenting on some portions of the Memorabilia of Socrates; which exercise continued two or three weeks, until the greater part of the students were assembled. On the first of November, the proper business of the course began, with an explanation of Aristotle's logic. This subject occupied the attention of the class till about the beginning of February, when the professor entered upon *metaphysics*. Commencing with that part of the enquiry which treats of the human mind, he afterwards, about the middle of April, proceeded to *ontology*, or that branch of metaphysical science which comprehends the various doctrines on the general attributes of being, existence, essence, unity, bonity, truth, relations, modes of possibility, impossibility, necessity, contingency, and other similar abstract conceptions of pure intellect; which topics, together with the usual questions connected with them, relative to the immateriality and immortality of mind, the liberty or necessity of human action, and other subordinate points, constituted the whole course of study. The lectures were delivered at an early hour in the morning; and, in the forenoon, the students were again assembled, one hour every day, for the purpose of examination; in addition to

which, two or three themes, not very closely connected with the subjects discussed by the professor in public, were usually prescribed by him as private exercises, at certain intervals during the session.

Having myself attended the logic class in this university, I remember well the general impression which was made upon my mind by the lectures then delivered; and also the opinion which was entertained of them by the more intelligent of my fellow students. The sentiment which universally prevailed among us was, that, though the professor explained the subjects, of which he treated, with great perspicuity and distinctness, yet no useful or permanent effects could possibly result from his prelections, either in the way of promoting activity of mind, or of establishing sound scientific principles. So far from affording any inducement to the study of philosophy, the ancient metaphysics appeared to us only to act the part of a *Cerberus*, in guarding the approach, and in deterring the most resolute from every attempt to enter. Respect for the teacher, rather than any interest in the subjects which he brought before them, induced the more industrious of the students to listen to the lectures with patience, and with a decent degree of attention: yet, the well-known attainments of the professor as a scholar, and the benign simplicity of manners by which he was distinguished, could not prevent his class from being emphatically, though rather rudely designated "*the drowsy shop of logic and metaphysics.*" The charm which had formerly

created so much interest and attention, in relation to these subjects, was now completely dissolved. They were no longer subservient to the art of disputation, which, at an earlier period, was wont to inflame ambition, and invigorate industry, among youthful academics; and almost the only motive which now remained, to secure attendance upon this part of the course, was the title, thereby procured, of being admitted into the succeeding classes, and particularly into those which qualify candidates for the church.

This conviction of the general uselessness, and even positively hurtful consequences, of spending six or seven months in the study of logic and metaphysics, was not confined to the youth within the walls of the college. From the time that the lectures began to be delivered in English, the eyes of men were opened to the unsuitable nature of the subjects of which they treated; and the defects of the system, as embracing a very important part of public education, became every day more striking, and called more loudly for a radical reform. It was observed by those who interested themselves in this question, that the subjects introduced in the logic class, even when perfectly understood, had little or no connexion with that species of knowledge which was necessary to prepare the student, either for the speculative pursuits of science, or for the active business of life. The local situation, too, of this university, in a great commercial city, where a quick perception of utility, and a clear insight into the adaptation of means to ends, may be

supposed to predominate, gave frequent occasion to animadversions on our scheme of preparatory instruction. Intelligent persons, who sent their sons to the logic class, although not themselves proficient in literature, could not fail to observe, that the subjects to which their attention was directed, had no relation to any profession or employment whatever; that the discussions connected with them had no analogy to those trains of thinking which prevail in the ordinary intercourse of society; and, in short, that nothing could be derived from prelections on such topics, which was likely in the smallest degree, either to adorn conversation, or to qualify the student for the concerns of active life.

About this time, accordingly, some severe strictures were published in Glasgow; the chief object of which was to impress upon the public at large, as well as upon those who were more immediately engaged in teaching, the conviction that universities adhered much too rigidly to the principles on which they were founded, and to the limited objects which they were meant to serve in the scholastic ages, a period when education was confined to a few churchmen, for whose purposes it was almost exclusively calculated. "Some of the classes in universities bear evident marks," it was said, "of their original design; being either totally, or in part, intended for the disputes and wranglings of divines, and of little use to the lawyer or physician, and still less to the merchant and the gentleman. Of this sort we reckon logic and

metaphysics. These arts or sciences (for it is not agreed yet which of them they are) to the greatest part of students, are quite unintelligible; and, if they could be understood, we cannot for our life discover their use." Lord Shaftsbury, in his *Characteristics*, had previously given an opinion to the same effect. "Had," says he, "the craftiest men, for many ages together, been employed in finding out a method to confound reason, and to degrade the understandings of men, they could not perhaps have succeeded better than by the establishing of this *mock science*."

During several sessions after my appointment, the former practice was regularly followed; that is, the usual course of logic and metaphysics was explained by me in the most intelligible manner I could—subjected, no doubt, to the same animadversions as my predecessor. Though every day more and more convinced me that something was wrong in the system of instruction, pursued in this class;—that the subjects on which I lectured were not adapted to the age, the capacity, and the previous attainments of my pupils, I did not venture upon any sudden or precipitate change. Meanwhile the daily examination of the students, at a separate hour, gave me an opportunity of observing that the greater number of them comprehended very little of the doctrines explained; that a few only of superior abilities, or of more advanced years, could give any account of them at all; and that the greatest part of the young men remembered only

a few peculiar phrases or technical expressions, which they seemed to deliver by rote, unaccompanied with any distinct notion of their meaning. Impressed with this conviction, which the experience of every day tended to confirm, I found myself reduced to the alternative of prelecting, all my life, on subjects which no effort of mine could render useful to my pupils, or of making a thorough and radical change, in the subject matter of my lectures. In adopting the latter determination, I was influenced by several other considerations, though of subordinate import, in addition to those which have been just detailed.

About the period to which the above remarks apply, young men were sent to college at an age considerably earlier than formerly; and were consequently so much the more unqualified to enter upon the abstruse inquiries, connected with the metaphysics and ontology of the schools. Besides, for the same reason, more time was now occupied with the study of Greek than had usually been devoted to that language, by students in the logic class; and, as various employments, at home and abroad, which, at the period in question, began to open to our youth, drew them away from college at an earlier stage of life, their education necessarily became less systematic, and considerably more abridged. Thus, the changes which were taking place in society required a more miscellaneous and practical kind of instruction, in the first philosophy class; for we found not only that our pupils, generally speaking, were younger, but that

they had less time to spare for the abstract doctrines of the ancient metaphysics.

But the evil of persisting in the old system was not confined to the mere loss of a session, and to the sacrifice of the useful knowledge which might otherwise have been acquired by the juvenile student. The effect was of a much more pernicious nature; for, to require the regular attendance of very young men, two hours every day, during a session of six or seven months, on lectures which they could not understand, and in which, of course, they could take no interest, had a direct tendency to produce habits of negligence, indifference, and inattention; which, it is well known, frequently terminate in a positive aversion to study of every description. The change from the animated perusal of the Greek and Roman classics, to the unfathomable depths of logic and metaphysics, was by far too abrupt. The knowledge of facts,—of the particular objects from which the abstract conceptions of the metaphysician are drawn,—was still wanting. A transition so great and so sudden is, in truth, directly opposed to the progress of natural culture, in the development of the human faculties, as well as to the established modes of improving the understanding, and of communicating instruction, in every other department of knowledge. In what other science or art, it may be asked, are the more difficult parts made use of, as an introduction to those which are sooner acquired and more easily understood?

Another disadvantage connected with the ancient logic and metaphysics, as this study was formerly conducted in our universities, arose from the circumstance, that, as it was wholly directed to the improvement of those particular faculties which are employed in acts of reasoning, comparison, and inference, it had an immediate tendency to produce an irregular and partial development of the energies, and to disturb that due balance and connexion which is established among them by nature. It seems not to have occurred to the scholastic philosophers, that the intellectual powers of man can only be successfully cultivated by a system of discipline which applies to the whole; and that, as these powers grow up together, in the closest connexion and affinity, so, in their progress towards perfection, they afford to one another an increased degree of strength and mutual assistance. The faculty of memory, for example, is improved by whatever tends to produce habits of attention; and the faculty of combination and inference is rendered more sure and vigorous in its operations, by the previous culture of those inferior powers of intellect, whose office it is to observe, to define, and to arrange the materials of knowledge, than it could be rendered by any artificial rules, applied directly to that faculty itself. The truth of these remarks is sufficiently illustrated by the effects which were actually produced, and by the distinguishing cast of character which prevailed, in the times under review. During the scholastic ages, when the art of logic was cultivated with unremitting and assiduous attention, the faculty of

reasoning was found to be improved only in one mode of application ; while the powers of taste, of eloquence, and of composition, were nearly altogether neglected, throughout the whole course of education, at school or college. Mr. Stewart, in his *Elements of Philosophy*, has, upon the authority of unquestionable facts, very satisfactorily shown, that men may become expert reasoners, with regard to a particular class of objects or ideas, without any general improvement of the faculty of reason.

It ought therefore to be the great object of a first philosophy class to supply the means of cultivation, not to one faculty only, but, to a certain extent at least, to all the powers of intellect and taste ; to call them severally into action ; to present appropriate subjects for their exercise ; to watch over their movements, and to direct their expanding energies ; so as to maintain them in that just relation to each other, and to secure that reciprocal aid, in their progressive improvement, which seems pointed out to us by the order of nature. To secure a suitable education for young men destined to fill various and very different situations in life, the course of instruction ought not certainly to be limited to the narrow range of logic and metaphysics ; but, on the contrary, should be made to comprehend the elements of those other branches of knowledge, upon which the investigation of science, and the successful despatch of business, are found chiefly to depend. In point of fact we seldom find that those who are most celebrated, for learning,

for eloquence, or for skill in the practical business of life, avail themselves, on any momentous occasion, of the abstract reasonings of logic, or of the subtleties of the metaphysician; while, on the other hand, such persons are constantly observed both fortifying their arguments and adorning their language, with the knowledge which they have drawn from history, from morals, from jurisprudence, and from politics.

This part of the subject must not, however, be brought to a close, without remarking, that the objections which have now been made, do not so much apply to the art of logic itself, as to the imprudent and unseasonable introduction of it, as the principal business of a first philosophy class. After students have made some progress in the science of physics, and in the doctrines of ethics; after they have acquired some knowledge of facts and principles, this abstract mode of reasoning may occasionally be applied with advantage; and, at all events, it affords no unsuitable exercise to the mind. It should always be remembered, too, that the improper use which the scholastic philosophers, as well as some other teachers of more modern days, have made of the dialectics of Aristotle, as an instrument for initiating young persons into their philosophical studies, is by no means to be attributed to the inventor of the art. It never was his intention that his speculations should be employed for such a purpose. This error is to be attributed to later times. The views have already been explained, which induced the patrons of education, in the dark ages, to

introduce these subjects into that particular part of the academical course which they have so long occupied; and, being once fairly established, they have kept their place in spite of the progress of science, the prevailing conviction of their inutility, and even the ridicule which has been directed against those who have adhered, with such pertinacious bigotry, to the practice of their ancestors.

ON THE SUBJECTS OF THE LECTURES WHICH HAVE
BEEN SUBSTITUTED FOR THE ANCIENT LOGIC AND
METAPHYSICS, IN THE FIRST CLASS OF PHILOSOPHY.

THE system of instruction, now long established in the first class of philosophy in this university, consists of two parts : the first, comprehending a course of lectures delivered daily, throughout the whole term, on the elements of such branches of science and of art as seem best suited to the age, habits, and attainments of the students ; the second comprising a daily examination of the young men, on the subjects discussed in these lectures, accompanied with prescribing, reading, and correcting a progressive course of themes or exercises, founded chiefly on the lectures, and executed by every individual in the class. The details of this latter division of the business will be explained at length, in a subsequent part of this volume.—I shall, therefore, at present, proceed to mention the subjects upon which the lectures are composed ; the sources whence they are drawn ; and, in one word, the nature, the extent, and the particular character of that species of knowledge which is daily communicated to the students, as materials for thinking, and as the foundation of their further progress in science or general literature.

The term *lecture*, it may be proper to remark, has a peculiar, and somewhat restricted, meaning in the Scots universities. The common acceptation of this

word is somewhat indefinite, extending to the explanation or illustration of obscure passages in ancient authors, and to general criticism on their beauties, or defects. Thus, the tutor in an English college is said to give a lecture, when, in translating the classics with his pupils, he occasionally removes difficulties, and points out, as he goes along, whatever may require their particular attention. But a lecture, as applicable to the practice of our universities, may be described as either an analytic or synthetic exposition of some literary or philosophical subject, drawn up in an expanded and popular form, and interspersed with copious illustrations, to assist the comprehension of the younger students. I here use the terms *analytic* and *synthetic* in their common, and not in their strict geometrical meaning, as descriptive of the two different paths which the mind pursues, in the acquisition and communication of knowledge; that is, either when it collects particular facts, which lead to more general facts and principles, where these can be obtained; or when, being in possession of general principles, it applies them to the explanation of such particular cases as may fall under them. In academical lectures, these two methods of investigation are sometimes separated, but much more frequently combined; according to the nature of the subject under discussion, and to the particular object which the teacher may happen to have in view.

A professor, accordingly, in composing lectures to be delivered to young persons, must be supposed to

have studied the several branches of his department of knowledge, with a reference to this particular end ; to have selected and adapted every topic which he introduces into them, with a strict regard to the capacity, and previous acquirements, of his pupils, as well as to the precise point to which he intends to conduct them, in their progress through science. He must be supposed to have read and thought for his students, nearly as they might be imagined to read and think on the subjects which he is about to communicate to them ; not, indeed, that he may thereby do their work, but that, on the contrary, he may employ their time and their industry, with the most important, the most suitable, and, consequently, the most useful studies. In the prosecution of these objects, it ought to be the aim of the teacher, in every part of his lectures, to lay before his students, at the proper time, those particular elements of knowledge with which they ought to be first acquainted ; to facilitate their progress towards more recondite subjects of enquiry ; to prevent unnecessary labour ; to obviate perplexity ; to assist their endeavours ; and gradually to lead them into those paths which will guide them, with ease and certainty, to still higher degrees of scientific attainment. Such, I conceive, is the meaning of the term *lecture*, in the Scots colleges. In addition, however, to what has now been stated, the professor will occasionally find it useful to introduce into his elementary discourses, particularly when his subject naturally suggests them, such literary incidents or anecdotes as may, at once, communicate information, and create

an interest in the minds of the students; for, in this way, he renders knowledge agreeable, from the manner in which it is conveyed, and efficient from the powerful motives which it can hardly fail to inspire.

It has been already shown that the logic and metaphysics of Aristotle do not furnish suitable materials for a course of lectures in a first class of philosophy; and it may be added, that antiquity does not present to us any practical system whatever for initiating the youthful mind in the principles of science, which, in these times at least, could be adopted, as the basis of an academical course. Indeed, after the most candid and diligent survey which we can take of ancient learning, whether among the Greeks, or among the nations from whom they are supposed to have derived their knowledge, we cannot discover that, with the single exception of geometry, they possessed any elementary treatise, or any work on philosophical education, which would at all answer our purpose. The Pythagorean system of discipline, for example, so far as we have the means of becoming acquainted with it, was far too speculative, either for acquiring knowledge or for improving the mental powers; and that mystical philosophy, which required of its disciples so many years of silent contemplation, could not be adapted to modern manners and pursuits, with any prospect of advantage. The Institutes of Persian education, mentioned with so much applause by XENOPHON, appear chiefly to have been directed to the improvement of the bodily powers,—

activity, dexterity, muscular strength, and the endurance of pain; and, accordingly, do not afford us much assistance, in constructing a system of rules and exercises for cultivating the endowments of the mind. From the *Memorabilia* of SOCRATES, and particularly from the works of PLATO, many valuable hints may, no doubt, be derived for training youth to reflection and self-command; but, although, in this respect, these writings merit the closest attention, and even contain many fine specimens of that description of reasoning which applies most successfully to the affairs of life, they certainly do not exhibit any regular system of education, nor even the leading principles upon which such a system could be formed. In like manner, though much was unquestionably done by the philosophers of the portico, the academy, and the gardens, in the way of communicating knowledge on many important subjects, still we are left almost entirely in the dark, as to the mode which these distinguished persons severally adopted, in their processes of instruction.

Nor have we received from Roman philosophy, even in its most enlightened periods, any regular system of public or private education. The Institutions of QUINTILIAN, I readily admit, although drawn up at a late period of that brilliant era which sheds so much lustre on the history of Rome, constitute one of the richest gifts bequeathed to us by former times; but, as that work was originally calculated to assist young men, who were prosecuting the

study of law, it cannot be considered as possessing all the requisites of a general system of academical culture. Much advantage may, however, be gained from that celebrated treatise, both by the teacher and the pupil ; and, on this account, several portions are extracted, and printed, for the use of the students in the logic class at Glasgow, to be occasionally read by them at the hour of examination, and commented upon, in the course of that reading, by the professor ; who makes it his business not only to explain the original views of the author, but to accommodate them as much as possible to the circumstances of the present day, and to the particular object of his course.

In modern times, numerous treatises have been written, both in our own and in foreign languages, on the subject of education. No one of these works, however, able and judicious as some of them undoubtedly are, deserves to be implicitly followed as a guide, in a matter confessedly so important ; for no one of them comprehends, in all its details, the various topics which ought to be introduced into a first class of philosophy, nor sets forth those still more essential duties of the teacher, which consist in adapting his instructions to the opening capacity of his pupils ; in supplying them with constant and suitable employment ; and in conducting them gradually from things more easy to things more difficult, in the natural order of the sciences. The truth, indeed, seems to be, that a systematic exposition of the different methods of teaching, considered merely as an art,

rather than as a practical and progressive scheme, for directing the efforts of those who are just entering upon the study of philosophy, has occupied the whole attention, and exhausted the ingenuity, of the more eminent among the writers to whom I have alluded. There appears to be still wanting a regular elementary system of academical study; which, uniting speculation with practice, principles and rules with suitable illustration and exercise, might embrace the means which seem best calculated to call forth and strengthen the intellectual powers of youth. It is of less moment, perhaps, from what branches of science or of art the materials of lectures, constituting such a system, should be drawn; provided they be carefully adapted to the actual state of information in which students, generally speaking, are found, at the commencement of the course, and agreeing in their tendency to create habits of diligence, and of independent exertion. Were it, indeed, the main object of the professor, in the first class of philosophy, to expound the doctrines of logic, or of any other art or science, there can be no doubt that his lectures ought to be restricted to that particular end, and the shortest and clearest explanation, which he could devise, would best serve his purpose. But, as that is only a very subordinate part of his aim, and as his leading object is not so much to convey information, as to stimulate industry, and cultivate the natural abilities of his pupils, he justly considers himself at liberty to make choice of his materials from the wide range of the sciences and arts, and as bound by no other rule,

in the use of them, than that of making them all bear, more or less directly, upon the point which he wishes to accomplish.

Indeed, there is even a particular advantage gained by selecting the materials of the lectures, delivered in a first class of philosophy, from different branches of the sciences and arts. The variety of subjects, thus introduced into the course, is more likely to attract the attention of young persons of different dispositions, talents, and habits, than if the lectures were of a more systematic and homogeneous character. Some may be captivated with the philosophy of mind, and others may feel a greater interest in the department of taste, in the theory of language, and in the rules of criticism; and, when the command of attention is once secured, and habits of application thoroughly formed, it is comparatively easy to transfer them from one subject to another. Besides, how various soever the subjects may be, which constitute the groundwork of such lectures, it is always understood that they shall be connected, not only by the general aim of the teacher, but by the relation which subsists among themselves; and, above all, that they shall be so arranged as to conduct the student, step by step, as well through the more limited field of knowledge with which he is to be made actually acquainted, as into the more extensive range which leads to greater attainments. The method of teaching by geometrical demonstration is, without doubt, the most perfect of all the modes of communicating science; and, in pro-

portion as the principles of that method are adhered to, in constructing a scheme of elementary education, so much more complete and successful will it be found in practice.

With regard to the selection of materials here presented to the reader, as the subject of lectures delivered in the logic class, at GLASGOW, it is by no means pretended that it is the best, or the most appropriate, that could possibly have been devised. Many valuable additions and changes might probably be suggested; and yet, imperfect and deficient as it may appear, it has been found by experience to answer at least some of the most important purposes of a first philosophical education. It is conducted upon principles, too, which, combining elementary instruction with active habits on the part of the student, seem to be strongly recommended by the most intelligent philosophers, both of ancient and modern times. “*Neque est omnino*,” says Cicero, “*ars ulla, in qua omnia, quæ illa arte effici possunt, a doctore tradantur, sed qui primarum et certarum rerum genera ipsa dedicerunt, reliqua non incommode persequuntur.*” *De Oratore*.—“*Quin ipsis doctoribus hoc esse curæ velim, ut teneras adhuc mentes, more nutricum, mollius alant, et satiari velut quodam jucundioris disciplinæ lacte patiantur.*” *Quinct.* lib. 2. cap. 4.—“The business of education,” observes Mr. Locke, “is not, as I think, to perfect the learner in any of the sciences, but to give his mind that freedom and disposition, and those habits which may enable him to attain every part

of knowledge, himself." The views which I have of education, and which I have endeavoured to put in practice in the first philosophy class, concur most perfectly with the opinions of these great and enlightened minds.

It is somewhat difficult, in giving a *prospectus* of the business of such a class, to draw the line between detailing too much and too little,—between a tedious explanation of common subjects, and a mere skeleton of contents. But it must ever be remembered, that these outlines were not written with the view of extending the boundaries of the sciences from which the lectures are taken: on the contrary, they are intended for the use of young men entering upon the studies of a first philosophy class; and they may perhaps, at the same time, afford some assistance to those who have not enjoyed the benefit of a public education, but who are desirous to compensate that deficiency by private reading and regular enquiry.

ON THE SCIENCE OF THE HUMAN MIND CONSIDERED
AS THE SUBJECT OF LECTURES IN THE FIRST CLASS
OF PHILOSOPHY.

AFTER the objections which have been stated to the ancient analytics and metaphysics, as an introduction to the study of philosophy, it may be thought a little inconsistent to adopt, as the subject of the first division of lectures in the logic class, the very abstruse and difficult doctrines which respect the science of mind. If, indeed, it were proposed to plunge the students, upon this their first entrance on the threshold of philosophy, into those abstract speculations which have been so long agitated by ingenious men, on the nature of mind, generally considered ; on its essence, as separated from its various properties ; on the characteristic difference between mind and matter, as metaphysical substances ; or into any other of those intricate questions which have been started, in relation to the reciprocal action and influence of these constituent parts of the human being, the charge of inconsistency would certainly be well founded. But none of these speculations form any part of this branch of the lectures. The study of mind, as well as of matter, has its plain and simple elements ; which are within the reach even of those who are only beginning to acquire the rudiments of knowledge, as being founded upon that acquaintance, which every one possesses, even in early life, with the

operations of his own faculties in the perception and discrimination of the objects which surround him. In this science, too, as in every other which proceeds upon regular principles, the attention of the student is confined at first to simple views, and particular facts; and it is only upon these, when properly ascertained and classed, that he afterwards advances, by successive and connected steps, to general conclusions relative to the several qualities and operations of mind.

To the elements of this science, therefore, I have recourse, on the present occasion, as the *mother science*, so to call it, from which all others derive at once their origin and nourishment. Thus, logic, metaphysics, ethics, jurisprudence, law, and eloquence, have their common origin in mind; while in all the branches of natural philosophy, the powers of intellect are the instruments, at least, by which knowledge must be acquired. However much these sciences may diverge from one another, in their more advanced stages, and in the practical applications to which they lead, there can be no doubt that they are closely allied in their origin; that they have common principles and a common language; and, consequently, that an intimate acquaintance with the phenomena of mind must form a suitable introduction to the study of every branch of human knowledge.

An additional reason for the choice of subject now mentioned might be derived from the consideration

that the close connection of the first part of human life with external objects, and the powerful impression which these are constantly making upon the mind, seem to require, at the commencement of a philosophical education, that a stand should be made in order to give the current a different direction, and to emancipate, as it were, the intellectual faculties from the thralldom of the senses. Nor is this change of the attention from outward objects to the emotions and workings of the thinking principle within, so easy as is sometimes imagined. But there can be no doubt as to the good effects of this mental discipline. The man who has been taught in early life to withdraw his thoughts from the impressions of sense and to fix them upon the objects of consciousness—to watch narrowly the rapid movements and changes which take place among his ideas—to form distinct notions of the intellectual faculties and their operations—is much more likely to acquire just habits of thinking than he who has never been accustomed to analyze his own feelings and trains of reasoning.

It is not to be expected, however, that the study of mind should be found unattended with considerable difficulties. These are not to be avoided, and they ought not to be concealed. Students must now be treated as men. The teacher of a first philosophy class must not promise too much ease, and the absence of all irksome labour. On the contrary, he must find it his duty to represent unto the young persons whom he addresses, that no valuable object

of any kind can be obtained by them, unless they voluntarily submit to protracted exertion and repeated sacrifices. This important truth should never be allowed to drop from their minds. It should be imprinted on every object which excites emulation or calls forth desire. It should be at once the guide and the motive of all their endeavours: and the happy effects of it will appear in a rapid increase of knowledge, as well as in the ready and successful employment of all the intellectual faculties.

The particular department of mental science which I have selected for the business of this class, is an analysis of the powers of the understanding—perception, attention, consciousness, reflection, memory, imagination, abstraction, judgment, reasoning. The object of this analysis, I need hardly observe, is to communicate distinct notions of these original faculties—their operations and offices—their connexion and intimate dependance upon one another.

In conducting this process, it ought not to be regarded as a matter of indifference with what part or quality of the subject the analysis begins. There is a certain order established by nature which must prove the best guide to the young philosopher, in following out his investigations; and to which, indeed, the mind is inured by its earliest habits of inquiry, whether in the department of art or of physical science. In examining a tree, for example, the

mind naturally passes from the trunk to the branches, the leaves, the flowers, and the fruit; and, in the analysis of a watch, or of a steam engine, the process commences with the source of motion, and advances, through a series of connected powers, till it arrive at the result or ultimate effect. Similar connections or dependences may be traced among the faculties of the human mind; and, in this case, as in all others, the student is most likely to attain success by a faithful adherence to those simple rules, which are dictated by the natural order and connection of the several parts of his subject.

It has, perhaps, arisen from the application of a defective analysis, that authors of eminence, even in the present improved state of philosophy, are found to use the various terms, which denote the faculties of the human mind, in meanings extremely different. Ever since the days of Aristotle, philosophers have attempted to found a distinction of the mental powers upon the peculiar nature of their several operations; and yet, so unsuccessful have all their endeavours for this purpose hitherto been, that writers, at no distant period, have disputed whether ideas were not a distinct substance, *per se*, different both from the faculty of perception, and from the object perceived. One philosopher has maintained, that perception and judgment are precisely the same faculty; while an eminent modern author of this country has attempted to identify the two important faculties of conception and imagination. Another

class of writers, again, have described the powers of taste, and of moral approbation, as internal senses, innate and infallible; whilst others persist in considering them as nothing more than modifications of intellectual energy, subject to the influence of education, of fashion, and of caprice. Surely, if the analytical investigations of pneumatologists had been skilfully conducted, the science of mind, after the exertion of so much talent and industry, during nearly three thousand years, could not have been found encumbered with the numerous imperfections and deficiencies, which still adhere to it. The astronomer has ascertained the true principles of the solar system, given names to the stars, and traced the paths of comets; but the metaphysician has not yet succeeded in even defining the limits of his inquiries, or in opening up, by an intelligible division of his subject, a way in which his successors might advance, with any better prospect of success.

The imperfect condition of this interesting science may, perhaps, be attributed to the neglect or contempt which has been manifested, particularly in our own days, for all researches connected with mind; at least for that department which is called pneumatology. We have been told, for instance, that merely to give names to the faculties of the mind cannot serve any good purpose, nor make us better acquainted with these faculties themselves. Will a person, it has been asked, perceive, remember, or reason better, by being informed that he has a dis-

tinct faculty of perception, another of memory, and a third of reason? It would be improper to answer these objections at any length, in this place; it may, therefore, be sufficient to observe, in passing, that though the mere giving of names does not constitute the study of mental operations, it would yet be impossible to proceed one step, in the explanation of the most common phenomena of intellect and feeling, far less in employing the appropriate means for cultivating these original endowments, without previously distinguishing, by the application of suitable terms, the several powers of the human mind.

As these outlines are intended to point out the manner in which the faculties of the mind may be explained, in a course of lectures addressed to young men who have just entered a first class of philosophy, I may hazard an example of the method which has long been pursued, for that purpose, in this university. It is not requisite, however, in such a work, to give an exact transcript of the lectures which are actually read to the students in the logic class; for, in the circumstances in which they are delivered, they necessarily comprehend many illustrations and repetitions, that would be insufferably tedious, to those to whom such subjects are familiar. The reader must, therefore, be prepared to meet with a plainness and familiarity of address, not to be found in lectures composed for the literary world, or even for students of advanced acquirements.

I begin, then, by remarking that the particular modification of mental power which is the subject of the analysis now to be entered upon, is called PERCEPTION—that faculty, whose office it is to open up the first and wonderful communication between mind and matter. In beginning the analysis of each mental faculty, I have found it useful to present it to the minds of youth, by a general description of its object and operations; and, afterwards, to direct their attention, successively, to the several modes in which it puts forth its power, in different cases and circumstances: and, in particular, to conduct the explanation in such a manner, as to appeal from the description of the faculty, thus given, to the consciousness of my pupils; referring them, from the theoretical view of its operation, to the actual feelings or notions excited in their own minds.

According to this view “Perception is that power or faculty of the human mind, by the operation of which we receive notions, ideas, sensations, from the qualities of external objects, by means of certain impressions, or effects, upon the organs of sense, when the attention of the mind accompanies the direction of these organs to the particular object before them.”

I here call perception a mental power or faculty. It is impossible to proceed one step in this analysis, without leading the student to form a notion of power, —or rather, putting him in the way of acquiring the

only notion of it which he can ever expect to attain. The first notion of power, then, he will find, is derived from observing the changes which are made, or the effects which are produced, by one external object upon another, as well as by these objects upon the mind through the medium of the senses. The child long perceives these effects, without acquiring any notion of power distinct from the object itself, which operates the particular change he perceives; and it is not until his mind has become a little more matured, and has been furnished with experience, that the young observer learns to draw inferences, and to form general conclusions. For those who are farther advanced, there is little difficulty in adapting such illustrations as will enable the enquiring mind to perceive the connexion, or relation which subsists between *cause* and *effect*. Let them suppose they have placed before them, a needle at rest upon a table, and a magnet within a certain distance of it. Motion instantly commences in the needle, and it rushes to the magnet, in opposition to the laws of gravity: here a change is perceived; an effect is produced; the two objects are conjoined. The needle is again placed at rest upon the table—the magnet is removed, and a piece of common stone is substituted—the needle now remains at rest. A question then naturally occurs to the student—what is in the magnet which produces the motion of the needle? It must be something which does not meet the senses; for it is neither in the weight, nor in the shape, nor in the colour of the substance that this singular

energy resides. To that unperceived property in the magnet—to that unknown something—the term *power* is applied; and, when we speak of it, in relation to the effect, we call it the *cause* of the motion which appeared in the needle.

By a similar process, we arrive at a similar conclusion with respect to the changes of motion and direction, in the several members of the body, arising from an act of volition. We are conscious of an exercise of that faculty, and we observe, at the same instant, that a change, connected with the body, has taken place. We are likewise conscious of certain acts of volition directing the motions of the mind; in all which cases, the act of volition and the corresponding change are conjoined so closely, that they naturally force themselves upon our observation, and remain associated, ever after, in the particular relation of cause and effect. We observe the change indeed, but we observe nothing more. We see a fact, in particular circumstances, resulting as a consequent from an antecedent; but, of the cause, considered metaphysically, we can form no notion whatever. “Vis est notissima—causa latet.”

Nor is it at all singular that, while we are able to form clear and distinct notions of an effect, we should find it impossible to penetrate into the nature and mode of operation of the cause, from which that effect proceeds. We have a vivid perception, for instance, of the effects which spring from the union of mind

and body, in the human constitution; and yet we cannot form the most distant conception of the principle upon which that union is founded. Indeed, our purest and most correct notions of power are derived from mind. A billiard ball, for example, is at rest upon a table:—a mace is made to come in contact with that ball, which is instantly put in motion; and, in this case, although it is the hand which moves the mace, the source of motion is in the mind, which, by an act of volition, stretches forth the bodily organ. By attending to these, and similar examples, the student may be assisted in forming the abstract notion of *power*.

The terms power and faculty, as applied to mind, it may be observed, have nearly the same radical meaning. The former, however, is of a more extensive import than the latter, and may be used in relation to material as well as to mental objects. Thus, we say of a stone that it has the power, not the faculty, of gravitation; while, on the contrary, in reference to the understanding and volition of the human mind, the term faculty has a much more suitable application than the term power. As a proper use of words is of the utmost consequence for preserving our notions clear and distinct, it may be farther observed, with regard to the terms now under consideration, that there are in the soul of man certain energies or active principles, to which neither the one nor the other will properly apply; and, accordingly, though we speak of the faculty or power of

memory, of judgment, or of reason, we do not employ such expressions as the faculty of desire, or the faculty of hatred.

It is said above, that, by the faculty of perception, the mind acquires or receives sensations, ideas, notions, &c. In going over with the student the several parts of this general description, it naturally occurs to remark, that the term *acquire* merely denotes a certain operation by which the mind becomes possessed of something which it had not before; and that this and other analogical expressions, are used in the explanation of mental phenomena, only from the imperfection of language, and from the difficulty of substituting, in their place, any forms of speech which would prove more definite and intelligible.

Beginning, then, with the first in order, SENSATIONS may be described as effects, or changes, of which we are conscious; and which are produced in the mind by certain impressions on the bodily organs. According to Mr. Locke, all changes of whatever kind or degree, made upon the mind, directly or indirectly, through the medium of the external senses, are to be called sensations; for he holds that all our ideas are either ideas of sensation or of reflection. There is, however, an obvious distinction applicable to our sensations, founded on the different degrees of pleasure or of pain with which they are accompanied, or rather, perhaps, in which they consist. The odour of a rose, for example, produces on the mind of the

percipient an effect so different from the colour of a board or the coldness of an iron bar, that these sensations ought certainly to be discriminated, and classed under separate heads. In like manner, the sensations of pain from the gout, are very different from the ordinary sensations of touch ; and so with regard to all the senses, and their respective objects. On this topic, it is farther observed, that while perception always implies a greater or smaller degree of knowledge, in relation to the subject upon which it is exercised, sensation conveys no knowledge whatever of its cause ; being confined, in its intimations, to the different degrees of intensity in which the various secondary qualities of body may happen to exist, in particular substances.

The knowledge derived from the perception of the material world around us, is expressed by the several terms *ideas*, *notions*, *thoughts*, representative of certain objects, with their qualities and concomitants. The term *IDEA*, from the Greek verb *ιδειν*, properly signifies a thought representative of such objects as have been perceived by the sense of sight ; and it is owing to the poverty of language that it is transferred to the first degrees of knowledge, received by means of all the other senses ; and, farther still, to those primary notions, or elements of abstract thought, which compose trains of argument, and chains of reasoning, in the mind of the philosopher or the statesman. This term, however, having been applied by certain writers to express the conceptions which

are formed of *genera* and *species*,—and having been restricted by others to signify that image of external objects which was supposed to be conveyed into the mind, during the process of perception, and constituting a specific substance, distinct at once from the outward object which it represented, and from the sensorium of the percipient into which it was introduced,—the word *notion* has, in latter times, been very generally substituted in its place, as being originally of a wider import, and more free from ambiguity.

Of the qualities of external objects, made known by perception, some are primary, and others secondary; a distinction which is to be found in the works of ancient philosophers. The former, it is well known, comprehend solidity and extension,—properties which were deemed essential to the existence of matter, and inseparable from it: under the latter are classed the more numerous attributes of colour, smell, taste, sound, roughness, smoothness, heat, and cold. Were it not that every thing which can tend, even in the smallest degree, to clearness of conception, and to a proper use of language, is important in the commencement of a philosophical education, it would not, perhaps, be deserving of remark, that, although we may apply the words *attribute*, *quality*, and *property*, almost indiscriminately to every species or class of objects, yet the first of these terms is more commonly used, when speaking of dignified objects and persons. Thus, in reference to the Supreme

Being, we employ the term *attributes*, and not *qualities*, or *properties*.

In the same simple mode of instruction, the attention of the student is directed, when on the subject of perception, to the important distinction established by philosophers, between the qualities and the substance of external objects. A stone, to take a very familiar example, is hard, and heavy, and rough, and cold; and these are some of the *qualities* of the stone; but the inquisitive youth will naturally ask, whether there be any thing in the stone, besides its qualities, incapable of change, and essential to its subsistence, as a portion of matter? The answer given to such inquiries will guide his mind in forming the abstract notion of *substance*. He will be told that there is, in the stone, something besides its sensible properties, and altogether different from them—the basis or *substratum* upon which these properties rest—the principle of union by which these properties are combined and held together, and which, unlike them, can suffer neither increase nor diminution—being the characteristic arrangement of its essence, so to speak, which forms the ground of distinction between a piece of stone, of metal, and of wood. This principle of union, or substance, is not, itself, an object of perception; on the contrary, we *infer* its existence, by the suggestions of reason, from the qualities which inhere in it, but we remain entirely ignorant of its nature, when considered apart.

As to the *history* of perception, or, as some have expressed it, the *generation* of ideas, it can only be remarked, that the process commences with the impression which is made by any external object upon the organs of sense;—those parts of the human body which are wonderfully fitted for opening a communication between the mind and the material world. To each of these external organs is assigned its peculiar part in maintaining this communication; for they are all adapted to receive certain impressions from the qualities of material objects, and to convey to the mind their respective sensations of sound, of colour, of smell, of taste, of hardness, softness, extension, heat, cold, &c.

That sensations are produced by the impressions made upon the senses by the qualities of external objects, is a fact which admits not of doubt or controversy; but, as to the particular nature of the change effected in the organ, in the nerves, or in the brain, by the secondary qualities of matter, in the process which constitutes sensation, we have no clearer knowledge than if we ourselves were not the subject of that mysterious operation. We borrow the word *impression*, as is usual with the pneumatologist in other cases, from the most familiar actions of ordinary life. A seal is said to make an impression upon melted wax: a hammer upon heated iron; and the effects of colour upon the eye, or of sound upon the ear, are imagined to bear some analogy to the

effect which one external object produces upon another. But the student must be cautioned not to confound the literal with the analogical acceptance of this term; which, when applied to mind, carries a meaning totally different from that which respects a change in the collocation of parts, or a new arrangement of surface. Though both the organ of sense, and the external object corresponding to it, be strictly material, no effect of a sensible or physical nature is produced upon the former in the act of perception: and a thousand succeeding impressions may be made upon the same organ, without altering its anatomical structure, or leaving any trace of the archetype of any one of the countless ideas which have been thereby formed. The term impression, therefore, in the department of mental science, merely denotes an unknown effect; which effect, however, is absolutely essential to the grand result—the perception of objects and the formation of thought.

In our endeavours to comprehend the mode in which impressions are produced on the organs of sense, particularly on those of touch and of taste, we are obliged to stop short at the very first step; while, from our more intimate knowledge of the organic structure of the eye and ear, as well as of certain properties of light and sound, we are enabled to proceed at least one step farther. The science of optics informs us that the rays of light, in passing from an object to the eye, are subjected to refraction in such a manner, that, when they reach the retina, or back

part of that organ, a picture in miniature of the object whence they proceed, is there completely formed, somewhat in the same way as reflected rays are concentrated by a convex lens. Still, although we can trace the process of perception thus far, we continue as much in the dark as ever, with regard to the nature of the connexion, and the precise point of union, between matter and mind. We cannot even assign any reason why the faculty of perception, in the case of visible objects, should require the intervention of an optical image; while, with respect to all the other senses, the mind perceives, immediately and directly, whenever the several organs are addressed by their appropriate attributes in the material world. That, in forming the elements of thought, the presence of an external object is indispensable, both to the existence of sensation, and to the act of mental conception, is a point clearly ascertained; but beyond this we cannot advance: an impenetrable veil is drawn over the wonders that follow. There is no ground, however, to be surprised that we should encounter such an obstacle in our search after causes, when approaching the farthest boundaries which divide matter from mind; it is only requisite, in communicating elementary instruction to youth, to draw as exact a line as possible between the known and the unknown; between what is certain and what is only probable.

In conducting this analysis of perception, nothing should be omitted that may tend, in any degree to

awaken curiosity, to excite interest, and to confirm habits of attention and inquiry in the minds of youth. At this stage, the zealous student, who has now, perhaps for the first time, been informed of some of the facts just mentioned relative to the senses, may in all probability be disposed to prosecute his inquiries still farther, with regard to the interesting organ of sight. Why is it, he will ask, that the visible object is perceived *erect*, whilst the picture of that object, in the eye, is *inverted*? and how do we see only one object, there being a distinct image formed in each retina? Upon what principle does the mind measure distance by the eye, although distance is not an object of sight; and in what manner do the senses of sight and of touch afford assistance and improvement, to each other? These questions, indeed, cannot be satisfactorily answered; but the investigations and reasonings to which they lead, can hardly fail to prove advantageous to the young philosopher. He will find that the curious facts which stimulate his research, must be traced back to that early education which is conducted, not by the skill of a professor, but by the wisdom of that great teacher who put a spirit in man, and taught him more than the beasts of the field and the fowls of heaven. He will discover that the most valuable part of our education is begun at an earlier date than we are apt to imagine; and that, whilst, according to our hasty conclusions, children are acquiring nothing, they are, in fact, busily employed in the acquisition of those important habits, on which all future instruction is founded,

and which could not be so successfully formed at any subsequent period.

To the general account which has now been given of the faculty of perception, is subjoined, a separate explanation of each of the external senses, or rather of the different modifications of perception which are connected with the functions of the different senses. In this detail, an attempt is made to characterize these modifications, by stating the source from whence they are derived; the objects to which they bear a reference; and the external organs through which the respective sensations are conveyed. The attention of the student is directed first to the material process in sensation, so far as that process can be traced; then to the sensation itself, as an object of the mind's consciousness; and lastly, to the comparison and determination instituted by the judgment, by which the sensation is raised to the rank of an idea, or notion, or thought, or, in other words, becomes a complete perception. This analysis is concluded with an attempt to lead, by easy steps, the minds of the youth to the solution of two questions connected with the external senses, and deeply involved in metaphysical perplexity;—first, whether the senses ever deceive us,—and, secondly, whether there be any other proof of the externality of the objects of sense, than that intuitive belief which accompanies the act of perception.

After the external senses, I proceed in a similar

manner to the explanation of the other powers of knowledge,—viz. attention, reflection, consciousness, memory, imagination, association; advancing in due order to the analysis of the more complex processes of abstraction, generalization, judging, reasoning, and invention. The principal object, and one which is constantly kept in view, in the lectures on these faculties, is to distinguish them from one another, by pointing out their respective operations and offices—to state their mutual connexion and dependance—and to illustrate the manner in which they assist and invigorate one another. To render this elementary instruction more efficacious and intelligible, the student is invited to cultivate an intimate acquaintance with his own mind; to institute a comparison between the explanation of every faculty, as given in the lectures, and the actual operations of it, as recorded by his own consciousness, when directed to its proper object: and, above all, to form clear notions, and to use a well defined language in his reasonings and discussions, on the several subjects which constitute the basis of mental philosophy.

Such an analysis of the powers of the mind as has now been described, comprehending the appropriate operations of the intellectual powers in their simple or combined processes—the generation and formation of ideas—the manner of expressing them—the modes of combination and deduction, is the only proper foundation on which rules can be established for conducting the mind in the search of knowledge,

or of communicating it clearly and distinctly to others. The frequent and constant complaints of a defective logic have chiefly arisen from the want of sufficient knowledge of the principles on which such rules are founded, and such habits acquired.

I conclude this head with observing, that those exercises of the mind which these lectures encourage and require—while they tend to increase the knowledge of youth, can at the same time hardly fail to strengthen and confirm those habits which bear on the powers of acquiring and communicating knowledge. They indeed serve this purpose much more effectually than rules or precepts directly prescribed for the improvement of those faculties.

ON THE ORIGIN AND PROGRESS OF LANGUAGE, AND
THE PRINCIPLES OF GENERAL GRAMMAR.

HAVING concluded the direct analysis of the faculties of the understanding, I proceed to a farther illustration of them by giving an account of the origin and progress of language, natural and artificial, as also of the principles of universal grammar.

No inquiry, regarded as a medium through which to study the powers of mind, can be more suitable for the purpose than that which respects the origin and structure of those external signs which are used to denote the various operations of the mental faculties with which it is our object to become acquainted. In the former division of the lectures, the attention of the student was directed immediately to the intellectual faculties themselves, with their several offices and relations; but, as he must have found it extremely difficult to form a just conception of their nature from a mere description of their object, or even to keep his attention alive to a detail of mental processes, abstractedly considered, he is furnished in the present department, with the means of knowing these faculties, and their respective modes of operation, from seeing them represented, by external symbols, in the formation and use of language. Independently of the advantage now stated, there is, perhaps, no other subject at once so easily accommodated to

the understandings of the young, and so closely connected with every other branch of science, as the study of language and general grammar.

The difficulty of forming a system of artificial signs, by which men might communicate to one another their various thoughts and feelings, has appeared to some philosophers so very great, as to exceed the utmost efforts of human ingenuity. Such authors have, accordingly, ascribed the origin of language to the immediate interposition of Heaven; and, endeavouring to support this opinion by the authority of divine revelation, they remind us that Adam gave names to the numerous tribes of animals which were made to pass before him in the Garden of Eden. But this inspired language, it may be observed, in reply, must have been solely adapted to the limited circumstances in which the first man was placed; and could not exceed, in the amount of its terms, the number of objects to which names were to be given. Indeed, an unwritten language must necessarily be restricted, in point of copiousness, to the few words, whether denoting things, or the relations of things, which may be necessary to express the simple conceptions of the people who employ it; and, whatever might have been the nature and extent of the original language now alluded to, we know that, at a future period, owing to the wickedness and presumption of mankind, it was entirely lost; and that, consequently, the human being was reduced to the necessity of inventing, anew, the art

of communication, upon the strength of that sagacity and of those resources, which were originally furnished to him, in the constitution of his nature. Thus, it should seem, that the power of forming language, like the faculty of reason, and those other endowments which are engrafted upon our mental frame, was committed to the industry of man to bring it into use, and to adapt it to his purpose, according as his knowledge of the things around him became more extended and particular. At all events, there is not, perhaps, in the wide field of human discovery, one invention which affords a stronger proof of the natural ingenuity of our race: for it admits not of doubt that the art of embodying thought and feeling, in sensible signs, must have made considerable progress, at a very early period, and before the introduction of other arts could have adorned the intercourse of society.

In his rudest and most uncultivated state, the language of man is of the same kind with that of the inferior animals; differing only in the greater degree of perfection which arises from the higher and more noble faculties possessed by the former. On this account, the collection of signs, audible and visible, by means of which communication is then carried on, is denominated natural language—being those particular manifestations of want, of desire, or of intention, which man is prompted, by the constitution of his nature, to make, and also to understand when made by others. In attempting, however, to trace

the progress of this wonderful art, we find ourselves necessarily unprovided with any regular history of its origin, and of the steps by which it advanced, both because the invention of writing was long posterior to the use of articulate sounds, and also because great advancement must have been made in it, before the attention of mankind could be directed to an analysis of those particular workings of their minds, upon which the origin and structure of speech are found chiefly to depend. Nor can any assistance in our researches, be derived from examining the formation even of such languages as appear the most original. Their analogies are too perfect, and their general structure too complete, to serve the purpose of leading us back to those first essays, and rude beginnings, of verbal intercourse; when men spake from their feelings rather than from their reason, and gave utterance to ardent emotion rather than to profound reflection. We are left, therefore, in this research, to note, in the first instance, the various resources which necessity might be supposed to create, and afterwards to guide our opinions by the knowledge which we possess of the laws of association, modifying the exertions of the human mind in the formation of an artificial and conventional language.

The student will best form a notion of the manner in which men communicate by natural signs, by supposing two solitary savages to meet together for the first time. After mutual surprise, they would per-

perceive their resemblance, in many respects, to each other; and each would conclude that the other was constituted with similar powers, possessing a similar principle of life and motion, and affected in a similar way by the same objects. The one, prompted by a powerful sensation of hunger or of fear, would be understood by the other, who, in like circumstances, had experienced similar sensations. If the object or cause of such emotions were present, it would be easy to make signs, whereby to point them out: if these objects were not present, an attempt would be made to indicate them, by imitating certain sounds, motions, or actions, peculiar to them, or in some degree descriptive of them: and, lastly, if it were necessary to make a communication respecting things which are not objects of sense,—an inference of the understanding, for example, or a sentiment of the heart, the natural sagacity of the human mind would suggest some analogy between these impressions, and the qualities of sensible objects, by which they might be represented to the imagination, and conveyed to the feelings of the auditor.

Such are the elements of the language of nature—an instrument originally calculated for denoting and describing those objects which address themselves immediately to the external senses, or which are closely connected with the several sensations which are made through the medium of these senses; and which, of consequence, could alone fully answer the purposes of communication, when intercourse among

men was almost exclusively confined to outward and sensible objects. It is obvious, however, that this mode of communication must have been gradually extended and improved, as society enlarged, and the number of objects and ideas increased; but, being ourselves in possession of a more perfect system of language, we cannot easily be brought to comprehend to what a degree of perfection such a mode of communication is capable of being carried. Some notion of it, indeed, may be formed by attending to the progress of natural language in children—to the efforts of dumb persons—to the art of pantomime, and to the modes of conducting traffic among rude nations unacquainted with one another's language, as explained in the narrations of travellers.

These subjects afford instructive, and, at the same time, very amusing materials for lectures, at this stage of the course. They lead the mind of the student to the history of remote times, and supply him with interesting views of human nature in its progress towards civilization. A contest, for instance, is recorded to have taken place between Cicero and the famous actor Roscius. The actor challenged Cicero to give him a sentiment which he could not express by significant gestures. Cicero accepted the challenge, and gave him a subject;—a passage, it is probable, selected from one of his most animated orations. Roscius expressed the meaning to Cicero's satisfaction. The latter then made some change in the sentiment, and varied the tone of passion; while the

former, with great facility, accommodated his natural language to the several changes which were thus introduced. Still, it will be readily admitted, that this mode of communication was, in many respects, essentially defective. It was the perception of its defects, and the increasing necessity for a more perfect system of signs, which, in process of time, gave birth to the most surprising and useful of all human inventions, an artificial language; consisting of sounds having scarcely any natural resemblance to the things signified. This effort of ingenuity, too, appears still more astonishing, when it is considered that the principal steps which led to its establishment were taken in those periods of society which are usually thought rude and ignorant: and, indeed, it is a remarkable fact, that no nation, however uncivilized, has been found altogether destitute of a spoken language.

It has been already remarked that, from the very nature of the case, and owing to the want of early documents, which, perhaps, were once in existence, we are unable to trace the history of human speech. Still the mere attempt to mark the probable steps by which the inventors and improvers of language were conducted, in their departure from the expression of natural signs to that of an artificial notation, will not fail to prove of considerable advantage to the student.

During the existence of natural language, as the

sole vehicle of communication, it must have been found, that, of all the classes of natural signs, those by the voice were capable of the greatest distinctness and variety. Vocal intonations, too, are, in some respects, the most natural expression of feeling; and the application of sounds to denote external objects, must have been much promoted by the principles of association and imitation, which lead men to use, as the names of things, the particular sounds which any of these objects respectively emit. Thus, every one has had an opportunity of observing the disposition in children to call domestic animals by names resembling the several sounds which these animals utter. Many analogies and relations are, in like manner, to be observed between sounds and objects not animated. Their loudness, their lowness, their softness, their hardness, their quickness, and their slowness, may all be associated with objects possessing qualities of a similar character. In the early periods of language, in fact, men are unacquainted with words altogether arbitrary. Prompted by necessity, aided by the powers of imagination and association, in discovering analogous sounds, and guided by reason in the application of them, their number of imitative vocables, in due time, become so great as to form the basis of a regular language. The sounds first made use of in primitive languages, it is therefore very probable, represented a whole action or event; the same terms denoting at once the principal occurrence, and the several circumstances connected with it; and, as the words in the Iroquoise and other

rude languages are, in general, very long, it is not unlikely that these tongues have not yet arrived at that stage of improvement, at which the parts of speech are broken down into smaller fragments, expressing, separately, the various ideas which enter into the conception of a complex object.

In following out this subject, I find it useful to bring into view certain questions which have been agitated by writers, in relation to the topics under consideration; as having a strong tendency to awaken attention in the minds of my pupils. The following may be given as a specimen. "How do men learn to appropriate artificial signs as the names of things before the connection between the two ideas has been confirmed by association? How came the sounds horse—house—cow—at first to represent objects with which they have no natural connexion or resemblance?"—It is answered—by the aid of natural language. The sound is uttered, and a look or gesture indicates the objects to which it is to be applied. Repeated efforts of this kind must, no doubt, be made, before the power of association can perform its office without the directing sign; but no sooner does experience form the connecting link, than natural language ceases to be necessary. In this respect, the language of nature serves as a handmaid to the language of art; affording assistance whenever it is necessary, and retiring from view when assistance is no longer required. This connexion, or alliance, may be traced even where artificial language has reached

its ordinary degree of perfection. When a person, for example, finds that he cannot clearly convey his conception of a visible object by words, he naturally attempts it by a draught or outline of his subject; and on all occasions, much force may be added to verbal expression by means of natural language; of which the range is much more extensive than can ever be acquired by mere artificial signs. Indeed, the perfection of spoken language consists in a happy combination of both.

Again, it is asked, in what manner, and by what steps, do mental, or intellectual objects,—thoughts, trains of reasoning, and conclusions of the understanding,—come to be represented by artificial signs? The answer is easy, and the ground upon which it rests is fully explained in the lectures. In one word, it may be said, that the language of the senses is the foundation of the language of mind. The signs which represent sensible objects, are applied figuratively to mental phenomena; and, from an analogy more or less remote, the terms used to describe the qualities, and mark the relations of the former, are transferred to express our notions relative to the latter. Thus, a person is nearly as well understood when he speaks of the extent, comprehension, depth, and acuteness of the mind, as when he applies the same words to material objects possessing these sensible qualities. Cold, soft, hard, applied to the heart; agitations, storms, tempests, denoting states of mind, are all terms first applied to objects of sense, and

afterwards, from some fancied resemblance, transferred to the feelings and passions. The words above, below, before, behind, on the right hand, and on the left, are as intelligible, when applied to mental relations, as in their primary application to those which are sensible and local.

After adverting to these and similar questions, I conclude this branch of the subject with two general remarks applicable to what has been now advanced, viz. that, in whatever country, and at whatever period, the departure from natural language, and the progress towards that of convention, took place, that progress must have been slow and gradual. It is not to be supposed that any nation, feeling the defects of their existing language, would assemble together, and adopt a general resolution to depart at once from their former mode of communication, and to adopt an entire new system of artificial signs. The slightest attention to the principles of the human mind, and to the history of society, must satisfy us that such a measure is impossible. Men do not invent signs until they find the want of them; and then only gradually, as their necessities require.

Secondly, in our endeavours to trace the origin and progress of artificial language, it must not be forgotten, that, in this, as in every other art, many important and very difficult steps have been gained, not in the ordinary course of things, but by the invention and sagacity of men of superior talents,

whose attention may have been particularly directed to the subject. It is the natural province of genius, when conversant with the arts, to remove obstacles, to supply resources, and to practise methods above the reach of ordinary abilities; and, in the early stages of a conventional language, there can be no doubt that many individuals, more ardent and successful than others, must have occasionally arisen, though the barren history of those times has not preserved the particular names, of those to whom mankind are so much indebted.

ON THE ORIGIN AND PROGRESS OF WRITTEN
LANGUAGE.

A SPOKEN language, by addressing itself to the ear, is necessarily confined within certain limits, can be heard only at a certain distance, and depends for its preservation, entirely upon the memory. Many circumstances, too, must have occurred even in the early progress of society, when languages were forming, to require a system of signs not only more permanent than spoken words, but such as might be used in facilitating intercourse between absent friends, and in conveying intelligence from one place to another. The desire of communication with persons at a distance, and of preserving the remembrance of distinguished characters and remarkable events, lead, in the course of time, to the invention of symbols; which, addressing the mind through the eye instead of the ear, might be used for transmitting a knowledge of facts to the remotest corners of the earth, and for preserving the thoughts of those who had been dead a thousand years.

The art of embodying language in visible signs, must have been considerably posterior to that which respects the use of mere vocal sounds: and, accordingly, we have accounts of many nations who are ignorant of the art of writing; but, as has been already remarked, we know of none who are not in the pos-

session of a spoken language. The following are probably some of the steps which are taken, in laying the foundation of this wonderful improvement.

The first, and most obvious device for representing a visible object is to draw an outline of the whole figure; and the next step, in the progress, is an abridgment of this outline, by fixing on some characteristic parts, and leaving out the rest—the head of a man, for example, instead of the entire body. When, again, it became necessary to represent invisible objects, the intention of the rude artist would most probably be fulfilled by using emblems, founded on some analogy, or allusion, to objects of sense; and the minuter parts of the information, the particular circumstances attending the event, or fact, concerning which intelligence was to be communicated, would be expressed by multiplied variations or additions to the original draught. These views as to the origin of writing, are, in some measure, confirmed by authentic records—by the narrative of a voyage to the Straits of Magellan—by the history of the conquest of Mexico and Peru—and, particularly, by an Iroquoise history of an expedition made by the French, when they possessed Canada, from Montreal, against a remote tribe of Indians. This curious document was, many years ago, brought to Europe; and consists of tablets, exhibiting, by means of a drawing in outline, and of emblem, an account of the expedition as it set out from Montreal—of the march of the soldiers

—of their arrival at the Indian village—of the attack—the number of killed and wounded, &c. Upon all which points a most interesting account is to be found in “*Traité de la Formation Mechanique de Langues.*”

The imperfection and obscurity of the hieroglyphic mode of writing, which must have necessarily increased with the progress of knowledge, and the utter impossibility of ever accommodating it to the manifold purposes of an extensive communication, suggested, it is probable, to some happy genius, that most valuable of all improvements in the art of embodying thought in visible signs—the method of writing by ALPHABETICAL NOTATION. This astonishing invention, it is well known, proceeds upon an analysis of the various sounds employed in human speech, and upon a discrimination of the principal elements into which they are reduced, by means of distinct visible characters. As soon as the attention was directed to this view of the subject, it would naturally enough occur to the mind of an ingenious man, that, as the same sounds are frequently repeated in vocal enunciation, the whole elementary sounds of a language, even when arrived at considerable perfection, might be represented by a limited number of marks or letters: and, in this way, was constructed that system of characters, denoting at once the simple sounds of spoken language, and the component parts of written language, to which has been given the name of Alphabet. As the principal elementary

sounds depend almost entirely upon the conformation of the organs of speech, this discovery could be easily adapted to all the tongues and modes of utterance in use among men; and, as the same alphabet suits the language of ancient Rome and those of modern Europe, so might there be the same uniformity among the Greeks and all the nations of the east.—In the lectures delivered on this subject, the method of conducting an analysis of vocal sounds is explained at length, and illustrated by examples.

It is extremely probable, that mankind owe this noble invention to the genius or industry of one individual; and yet no memorial of the inventor is to be found; no account of the country in which he lived; nor even of the particular epoch in the history of the world in which he accomplished this great achievement. On no occasion is the philosopher more disposed to lament the deficiency of ancient history, and the very imperfect notices which are furnished by tradition, than when he reviews the progress of discovery and invention, the honour of which is nowhere appropriated.

This division of the lectures is concluded with some account of *general grammar*; or, of the principles upon which philosophical grammarians have attempted to discriminate and classify the component parts of human speech, whether written or spoken. As men have everywhere the same powers of mind; as the intellectual faculties exhibit in every tribe of

human beings, the same general character, and perform the same operations according to their several degrees of improvement or perfection; and, as the people of every climate have nearly the same feelings to express, and the same objects to designate, it is to be expected, that a common basis, and a great similarity of structure, should be found in all languages. They all necessarily agree in substance; differing only in form, and in what may be called their *minor accidents*. Thus, every person, acquainted with more than one language, must have perceived, that, in all, there are the same classes of signs, and the same relative functions among the words which compose them.

The order in which general grammar is considered, in the lectures, is set forth in a printed syllabus, which is put into the hands of the students. 1st, An account is given of the different classes of signs, and of what constitutes a different part of speech.—2d, Of the changes on the termination of some of the classes of signs, with the view of accommodating them to the purposes of communication.—3d, Of the principles which regulate the position or collocation of words in the formation of sentences; according to what may be denominated, the natural—the artificial—or the rational principle of arrangement. But, as it would be improper to enlarge on these subjects here, it is sufficient to say, that the principal writers on general grammar have been carefully consulted, for the express purpose of extracting such materials

as appear best adapted for giving a distinct account of the origin, the progress, and formation of language; for explaining the connexion which subsists between the several classes of words, and certain operations of the mind; and, lastly, for affording such a degree of knowledge of the common source and affinities of human speech, as constitutes the best foundation for an intimate acquaintance with the particular language, which it may, at any time, be necessary to study.

Finally, the subjects of this division are peculiarly calculated to promote the general end of these lectures—the improvement of the powers of acquiring and communicating knowledge; inasmuch as they afford suitable means for encouraging thought and reflection in young persons. A happy illustration of the origin and progress of artificial signs, may be obtained by watching the beginning and progress of them in children, when all their communication is carried on by natural language. The student may perceive how the association begins—and how it is strengthened in their minds—the steps by which they pass from natural to artificial signs—from signs that first denote sensible objects, and are afterwards transferred by analogy to those that are intellectual—and, finally, the principles which lead them to join words together in sentences, to express a complete and continued thought. It must be allowed that in this way, mental experiments may be regularly instituted. Trials may be made to discover the

natural workings of the mind, in the efforts which it makes to communicate by external signs.

Thus instructed, the student can raise his thoughts a step higher, and direct his attention to the state of early nations and tribes, and the progress of language among them. He will find a constant relation between the progress of reason and that of language. Where the language is imperfect and defective, the people who speak it will be found rude and uncivilized: and, wherever a language is found much improved, the people have arrived at high degrees of civilization. These subjects attract the attention of young persons, and enable them to read the books which treat of them with curiosity and with improvement.

ON THE ELEMENTS OF INTELLECTUAL CULTURE.

THE principal object in view, in the former part of the lectures, was to assist the student in arriving at distinct notions of the intellectual faculties; and this not only in their simple, but also in their combined form, and as they mutually influence one another in the several processes of sensation, perception, judging, and reasoning. The next object is to explain in a similar manner, the means by which these faculties may be cultivated and improved: for as it is not enough that the husbandman should know the nature and kinds of his several soils, but also the management by which they may be rendered more productive, so the intellectual improver should likewise be well informed in regard to the means which, under proper direction, will carry the powers of the mind to their highest degree of perfection.

It is not to be doubted that the faculties of the understanding are susceptible of improvement in various respects. Those powers, for example, which, at first, are exerted with fatigue and difficulty, are found, after due culture and practice, to perform their several offices with much ease and satisfaction. Feeble and slow in their beginnings, they acquire activity and strength: inconstant and irregular, they at length become subject to voluntary and protracted exertion. The best system of education cannot in-

deed produce new faculties in the mind; but that it will effect an astonishing improvement in the vigour and facility with which the original endowments of intellect may be applied, as well to literature and science as to the common business of life, is known to every one who has had any experience in teaching.

The chief means for accomplishing this improvement is regular exercise; and the main secret of education is to excite and keep alive a spirit of activity in young persons, whereby study becomes their greatest pleasure, and a desire to excel, the leading motive of all their pursuits. Nor is this law confined to the human being. The inferior animals also may be trained and improved by means of a well regulated practice. Even the tree more easily bends to the prevailing wind: and the magnet is found to support a greater weight by gradual and moderate additions.

It is perhaps unnecessary to observe, that every faculty of the human mind has its peculiar mode of culture. Memory, for example, requires for its improvement, a system of exercise altogether different from that by which the power of imagination is most effectually strengthened: while judgment and reasoning are brought to maturity by a species of discipline, which would, perhaps, be found rather to check than to promote the vigorous exercise of imagination and memory.

The various means of maturing the intellectual faculties, from their first unassisted efforts to their highest state of improvement, may be brought under these two heads—the education of nature, and the education of art. The former comprehends such resources as are supplied by the constitution of the mind itself, or by the circumstances in which man is placed, for exercising and strengthening his mental energies; the latter embraces all those methods which are employed by parents and instructors in the season of youth, or which are afterwards spontaneously resorted to by the adult student, when he has become qualified to understand the nature and object of mental culture.

It is perhaps impossible to define the exact limits of these sources of improvement, or to point out precisely where the one ends and the other begins. Many important steps are gained, before children are capable of receiving instruction from those around them: and among these we may enumerate some very valuable intellectual habits, of which we cannot explain either the origin or the progress. For example, we cannot form any conception of the manner in which the sense of touch instructs the eye to judge of distances: nor can we comprehend those mysterious lessons, by which the mind was first taught to associate external signs with notions and sensations; or those by which it is led to infer the externality of material objects, from the impression produced by them on the sentient principle within.

This subject is fully illustrated in the lectures, by the views which are given of the acquirements of rude nations, prior to the influence of systematic education—of the intellectual powers which are usually unfolded in such a condition of society—of the circumstances favourable or unfavourable to the development of the mental energies—of the peculiar talents and virtues which are called forth in that situation—of the origin and progress of their ideas relative to property and personal rights—of the history of the common and more necessary arts, and of the first approaches to science and general knowledge. It is shown, that to this education of nature may be traced the rudiments of those useful and surprising arts, which are carried to such high degrees of perfection in civilized society. The ship of war, with all her appurtenances, might have its history carried back to the Indian canoe—the magnificent palace, to the hut or wigwam of the savage—and the complicated systems of modern government, might find their origin in those simple forms of patriarchal rule, which prevailed among the primitive tribes of mankind.

An opportunity is thus presented for enlivening the lectures, by introducing a variety of anecdotes and historical notices, which are well calculated to make an impression on youthful minds, to suggest subjects for future speculation and inquiry, and, above all, to supply materials for composing the essays, which, according to the plan of discipline established in this class, are regularly prescribed and exacted.

In selecting these pieces of information, too, particular attention is used to provide such as may tend to illustrate the progress of the human mind under the education of nature, both as it respects rude nations, and as it applies to the condition of early childhood in our domestic circles. Such topics are level to the comprehension of the youngest student. A child thus becomes an instructive companion to the young philosopher. He beholds in the gradual opening of the infant faculties, propensities, and desires, the best natural history of mind. He perceives in the first play of imagination, and in the first attempts at reasoning, the prolusions, so to call them, of those brilliant powers, which charm the world in the poet, and instruct it in the man of science.

The education of nature is the basis of that of art. The teacher does not begin the course of learning, but merely carries forward that which is already considerably advanced; and the more closely artificial systems follow the method which is pointed out by nature, the more likely are they to prove successful. After all that is accomplished by the unassisted energies of the mind, there still remains a wide field to be occupied by the skill and industry of the preceptor; for it is a truth sufficiently confirmed by experience, that, as there is an art for improving the vegetable tribes, by which they are frequently brought from weakness to strength and beauty, and another for training the inferior animals to obedience and usefulness, so is there an art for training and improving

the human race to mental vigour, and for guiding them to the attainment of the most valuable treasures of knowledge and wisdom. In proportion, too, as the original powers and capacity of man surpass those of every other order of animals with which we are acquainted, his progress is greater in actual improvement, and the fruits more precious which spring from well directed culture.

Were we to compare a wild man, such as was found in the woods of Hanover in the reign of George the first, with a monkey, we should no doubt perceive that the degree of reason in the former, somewhat exceeded the proportion of the same endowment possessed by the latter. But the great specific difference between the two animals consists not so much in their actual condition, as in their respective capacities of improvement; for while the one, by suitable culture at a proper season, might have been taught to speak, to read, to write, and to acquire art and science, no degree of instruction could have produced such effects upon the other. The man in favourable circumstances might have been improved so as to enter upon deep calculations, and to follow out intricate trains of reasoning; whereas the monkey, even under the most sedulous and enlightened teacher, would only have continued to chatter, and to practise its various unintellectual mimics.

The range of improvement in the inferior animals

is not only extremely limited, but in every case it begins and ends with the individual. It is never communicated to the species. The bees on mount Hybla, at the present day, have neither more art nor more industry, than those which made honey, on that celebrated eminence, in the days of Virgil. In the human kind, on the contrary, the species at large improves by the advances which are made on the part of the more fortunate or more ingenious of its members: and man, who once lived in caves, or amid the rocks of the desert, now forms for himself convenient and magnificent houses—constructs ships in which he traverses the pathless ocean—and mounts up into the air in balloons.

It has been already stated, that all the faculties of the human mind are improved by exercise, and moreover, that there is a particular kind of discipline suited to the character and objects of each of these powers, on the judicious application of which depends in a great measure the success of education. For this reason, I shall explain very briefly the means of culture, which seem best adapted to the several intellectual faculties; beginning with those which respect the faculty of perception.

ON THE IMPROVEMENT OF PERCEPTION BY THE
ORGANS OF SENSE.

THE operations of the perceptive faculty, as exerted through the organs of sense, are partly voluntary and partly involuntary. Whenever these organs are impressed by external objects, the mind necessarily receives the sensations which they are respectively fitted to produce: and the notion, or representative thought of any object,—a tree or a house, for example,—must correspond exactly to the impressions received from it, by means of the external senses. In sensation, properly so called, indeed, the mind is entirely passive; having no power either to diminish or increase the effects produced upon the sentient principle by the qualities of matter. The odour of a rose, or the smell of asafœtida, when impressed upon the olfactory nerves, is as much beyond the reach of the will to increase or to weaken its intensity, as is the pain of tooth-ache or the peal of thunder. The voluntary power of the mind in sensation is confined to the simple acts of directing the organ to its corresponding object, of continuing it a longer or a shorter time in action; and, when no physical impediment intervenes, of withdrawing or transferring it to another.

It is sufficiently confirmed by experience, however, that the faculty of perception, as more immediately

connected with the senses, may, in its most essential operations, be greatly improved. When the pursuits of any individual lead him to a more constant or frequent intercourse with the objects of one sense than with those of another, that sense becomes both much more acute, and, at the same time, much more ready in its discriminations. The wine merchant, for instance, acquires a peculiar nicety in distinguishing the flavour of wines; and the perfumer in discriminating odours. But the eye and the ear are susceptible of improvement, in this way, to a much greater extent than any of the other senses. Nay, in some cases, the power of one sense seems almost to be transferred to another. Thus, persons born deaf acquire more acute perceptions of sight; so much so, indeed, as to distinguish difference of sounds by the motion of the lips. In truth, those who have no peculiar interest in improving any one of the senses, are frequently struck with astonishment, at the success of such individuals as, from some accidental loss, or defect, in the outward instruments of perception, have been compelled to concentrate all their care, in cultivating those that remained entire. It is obvious, at the same time, that as the organs of sense are nearly the same, in every order of men, such instances of improvement must arise solely from continued efforts of attention, stimulated by the necessity of particular situations. It is to the intellectual energy, which in such cases is made to accompany, with peculiar force, every organic impression, that we must ascribe the surprising facts now alluded to:

and not to any singularity of conformation, in the external instruments, or to any other circumstances whatever of a corporeal nature.

Taking a more general view of this interesting subject, it may be stated, as a practical inference, that the improvement of perception, and the acquisition of those other intellectual habits, which, from the rapidity with which they act, appear almost instinctive, are the natural result of the frequent repetition of certain acts which were, at first, slowly and deliberately performed. Upon this principle, which is, in many respects, one of the most important in our mental frame, may be explained those astonishing processes of intuitive perception, which at once constitute the most valuable part of our knowledge, and prove our surest guide in interpreting the laws of nature. For instance, it was by acts of attention, frequently renewed, at a period, and from motives, wholly forgotten, that the mind first learned to determine distances by the eye; while the no less wonderful process of associating thought with external signs—of rapidly gathering the meaning of an author from a slight inspection of his words—originated in separate acts of volition, painfully, and perhaps reluctantly, repeated. Upon the whole, then, and without further illustration, it may be remarked, that the man who has acquired a habit of attention multiplies, as it were, the number of his senses, by enlarging their range of action, and by increasing their powers of discrimination.

The external senses, particularly those of sight, hearing, and touch, have, in modern times, been greatly extended in their operation by the assistance of art. It is admitted, indeed, that the different degrees of heat, or of cold, or of the weight of the atmosphere, cannot be immediately ascertained by the sense of touch; but there are artificial senses invented, so to call them, such as the barometer, the thermometer, the calorimeter, &c. which have added greatly to the extent and precision of such sensations. As to sight, again, not only have the weakness or defects of the organ been met by suitable remedies and substitutes; but the science of optics, and the various discoveries which have been made, relative to the properties of vitreous substances, have extended the powers of vision almost beyond imagination itself. The ear, too, has been greatly assisted by the use of instruments; formed at once on the knowledge of its structure, and of the laws which regulate the transmission of sound.

Since, then, the power of perception by the organs of sense has been so much increased by the industry and ingenuity of men; and since most important results, altogether unexpected during their first efforts, have been subsequently gained by study and perseverance; may we not anticipate still greater success in some or other of the sublime discoveries which have been lately made, in different departments of science. When philosophers first directed their attention to the properties of vitreous substances, and

commenced their experiments on the various qualities which these substances present, they had certainly no expectation that they were paving the way for such improvements in the arts, connected with optics, as might enable their successors to watch the motions of the most distant bodies in the universe, and to examine objects so extremely minute as to escape the detection of unassisted vision. But men have so frequently exceeded their own expectations, and the inquirers of one age have so often gone beyond the bounds prescribed by those who went before them, that we are not warranted to set limits either to the discoveries of science, or to the improvements of art. If, in an assembly of the choicest spirits of Greece or Rome, and in those conversations in which sparks of genius darted from mind to mind, any individual had thrown out a conjecture that the time would come, when men should traverse the pathless ocean with as much certainty as they walked on the Appian Way, he would probably have been considered as a visionary or an enthusiast. Before the discovery of America by the Europeans, the people of Mexico lived in security and splendour, and probably thought themselves the most enlightened nation upon earth: when, on a sudden, there arrived among them a race of men so far surpassing them, in all manner of attainments, as to appear, in their eyes, a superior order of beings. Previous to this, if any one had announced even the possibility of such an event, he would have been treated with that degree of ridicule which we should bestow upon the

man who should predict a visit to our globe from the inhabitants of another planet. In ancient times, it was known that amber, when rubbed, attracted and repelled lighter bodies with great velocity: and, even a century ago, when only a few detached facts had been collected with regard to the science of electricity, who could have foretold that, by future discoveries of the properties of this wonderful fluid, we should be able to explain some of the most astonishing phenomena of nature—to bring, with perfect safety, the thunder from the cloud, or to divert the lightning from its path? The MARQUIS OF WORCESTER first observed that the steam of boiling water had force sufficient to raise up the cover of a kettle; but he could not then imagine the numerous and amazing uses to which steam has been since applied; or that it would be substituted in the place of wind and water, in the movements of machinery.

Such facts and considerations, submitted to the ingenuous minds of youth, intent on study, answer a double purpose. They not only furnish, as I have already remarked, suitable materials for the exercise of reflection, but they open the imagination to lofty views of science, as connected with human genius and industry, and they hold out a most encouraging promise of success to steadiness and perseverance,—thus, naturally, calling into action the latent principles of ambition, and the love of excellence. They are introduced here expressly with that view; from the conviction that good impressions fixed in the

mind indirectly, or from a survey of what has been actually achieved by the patient working of philosophy, frequently contribute more to create industrious habits, and to kindle the fire of genius, than the most enlightened precepts, or the most affectionate admonitions. And, indeed, when we compare the little which we really know, even after the boasted improvements of the present age are added to those of all the ages which have preceded it, with the innumerable mysteries which still remain unexplained;—above all, when we contemplate those glorious luminaries which are just brought within our view, and of which we know comparatively nothing, we have good reason to believe that all we have yet discovered, and reduced to the form of science, are but so many steps at the bottom of a long ladder, by which future generations are to ascend to higher degrees of perfection. The prayer naturally suggested by these considerations, and which should arise in the mind not only of the pious Christian, but of the ardent philosopher, is well expressed in these beautiful words, “O send forth thy light and thy truth, and let them lead and guide us to thy holy hill.”



ON THE IMPROVEMENT OF THE FACULTY OF
ATTENTION.

IN the general analysis of the powers of knowledge which is given in the lectures, that of attention was particularly described: and the import of certain terms, denoting different degrees of intensity in its operation, was minutely explained. Thus, observation, reflection, meditation, may be regarded, so far at least as attention is considered, as being the same intellectual act, modified only by the particular circumstances which determine the preference, or degree of interest, which the mind feels for the several objects of its inquiry.

By the faculty of attention, I mean the intellectual power of notice, whether directed to external objects, or to objects of consciousness,—and, by the *habit of attention*, I mean a facility in exerting that power, acquired, as all other habits are, by frequent repetition of its peculiar act. But I am more solicitous about giving instructions as to the means of acquiring the voluntary direction of this most important faculty, than with regard to the particular words in which its office may be defined, or its operations described; for, though attention is very frequently summoned, and even commanded, by impressions seizing the mind from without, there can be no doubt that it is susceptible of great im-

provement, both as to the intensity of its action, and, more particularly, as to the ready use which can be made of it by the other faculties. Indeed, it would be extremely difficult to explain the means of cultivating the intellectual powers of perception, memory, imagination, and judgment, without a constant reference to the effects of attention; and, on this account, it may be justly observed, that the surest way to attain success in improving the former, is to acquire a voluntary direction of the latter.

The art, then, of acquiring the habit of attention can be learned by those only who are willing and desirous to make the acquisition; and the first step towards realizing their wish must consist in removing the various obstacles and temptations, which, scattered thickly in the paths of youth, would for ever retard their progress, and defeat their object. The diligent student knows well that the variety and constant recurrence of sensible objects exert a powerful influence in distracting his attention, even when he strenuously endeavours to fix and command its operation: he must, therefore, in his hours of study, remove himself as far as possible from the reach of an influence so dangerous and seducing; he must quit the "busy haunts of men;" withdraw to retirement and silence, and thus preclude, at least to a certain extent, those solicitations which arise from external things.

But the disturbing causes are not all from without:

the student has also secret enemies to encounter from within, who follow him into the deepest solitude. Memory, the faithful repository of his past pains and pleasures—imagination, the ready instrument for anticipating those which are to come—are ever active in withdrawing his attention from the proper subjects of his study. To these may be added many hidden causes of restlessness, fretfulness, and impatience, which cannot so easily be brought to account, but which greatly harass the mind, and unfit it for exertion. From whatever source, however, and in whatever shape the impediments to attention spring up, the student must endeavour to throw them off, with spirit and determination; and, if they should not yield to his first efforts—as they probably will not—he must redouble his exertions, and increase his watchfulness, to secure a decisive victory; for success in this matter becomes less attainable in proportion as the conflict is delayed. The stream which may be kept within bounds, near its source, gathers strength as it advances, and may ultimately break down every opposing barrier.

To this sort of negative preparation for study must be added certain endeavours of a more direct tendency, for acquiring the command of this valuable quality of mind. But nearly the whole that can be comprehended on this head may be expressed in one general precept;—"Do every thing with attention." Let the student observe, read, hear, and compose with attention; let him exert attention in all the

pursuits connected with the business of the class, and in all the more general occupations by which knowledge or science is acquired. Nothing important can be attained without close and strenuous application; but, to encourage him in this necessary labour, it is right to assure him that it will become, every day, less irksome—that he will soon experience an increase of power, not only in the exercise of this particular faculty, but of all the other faculties of his mind—that his command over his attention will be so greatly enlarged by habit, that he will be able to direct it to whatever subject he may choose; to continue it intensely as long as the subject may require; and to transfer it from one subject to another, as often as such a transference may be necessary. Nor will there ever be wanting a sufficient variety of occasions on which to exercise attention. Wherever the student goes, he will find materials for observation; every book which he reads will supply him with matter for reflection; every lecture which he hears, and every exercise which he performs, will require concentration of his faculties, and demand from him different degrees of attention. In short, as this property of the mind must accompany every exertion of its other powers, so every act and habit, regularly performed, has the effect of improving the attention, and of adding to its natural vigour.

These opinions respecting the means and practicability of controlling the attention constitute no novel

doctrine; for *EPICETUS*, the celebrated stoical philosopher, though with somewhat different views, wrote nearly to the same effect, more than two thousand years ago. "When you let go your attention," says he, "do not fancy you can recover it when you please, but remember that, by the fault of to-day, your affairs must necessarily be in a worse state to-morrow, and to-morrow has its connection with the succeeding day; and, what is the saddest thing of all, a habit arises of not attending, then a habit of deferring the attention—Wherefore, then, do you not preserve a constant attention?—I would play to-day—Why then? Ought you not to do it with proper attention? I would sing; and what forbids that you sing with proper attention? Tell me what you could do, where no attention is necessary? There is no part of life to which attention does not extend; for, will you do it the worse by attending, and the better by not attending? Tell me what thing in life is best performed by inattentive people? Does a smith forge the better by not attending? Does a pilot steer the better by not attending? Or is there any of the smallest operations that are performed the better by inattention?—But now, you say, I will begin to-morrow to attend. Be assured it is the same thing as to say, I will be thoughtless and unworthy to-day. It shall be in the power of others to upbraid me, and to despise me, to-day; but all will be well to-morrow. How much better to-day! If it be your interest to-morrow, it is much more so to-day, that it may be in your power

to-day, and that you may not defer it again till the third day."

The students of the present age might not inaptly be subjected to these familiar interrogatories. It might be asked, Do you hear the lectures better when you are inattentive? Can you compose essays, or perform any part of your work the better with inattention? Can you even trifle well without exerting some degree of attention? These questions may be thought trivial or unimportant; but they are, notwithstanding, a powerful species of appeal to the good sense and feeling of ingenuous youth, which they cannot easily resist, and which they will not be inclined to despise. Let the words of Epictetus, too, ever and anon, sound in their ear; "Why should you not preserve a constant attention?" Let it be impressed upon their minds that their success, in the pursuit of knowledge, must depend, in a great measure, upon the steadiness and regularity with which they can bring their faculties to bear upon every particular subject; that the power of attention is the foundation of the art of study; that it abridges the process of investigation, and communicates both vigour and readiness to every intellectual energy.

All that has been said, however, on the importance and difficulty of acquiring this valuable habit, ought not to create any discouragement in the mind of the diligent student. For his comfort it may be mentioned, as a fact confirmed by experience, that

persons of moderate abilities, and possessed of no particular advantages, are capable of attaining to remarkable degrees of eminence in the exercise of attention and abstraction. In the mechanical, as well as the liberal arts, and even in the common business of life, people of every order of intellectual endowments are found to carry on, without labour or difficulty, trains of thought both intricate and profound, and, at the same time, to acquire habits of mental exertion, which could not have been formed without deep and persevering attention to one subject. The principle of the division of labour, the cause of so many improvements in civilized life, presupposes that the attention of the artist is withdrawn from every study but that which constitutes the object of his profession. "Persons of ordinary abilities," says Miss Edgeworth, "tradesmen and shop-keepers, in the midst of the tumult of a public city, in the noise of rumbling carts and rattling carriages, amidst the voices of a number of people talking upon various subjects, amidst the provoking interruptions of continual questions and answers, in the broad glare of a hot sun, can command and abstract their attention so far as to calculate yards, ells, and nails—to cast up long sums in addition, right to a farthing, and to make up multifarious bills with quick and unerring precision. In the great public affairs, the most difficult and extensive calculations are carried on by clerks of an inferior station, on whom the chief trouble falls,

without either the encouragement of fame or of great emolument."

The habits of attention necessary on the part of the student, for the cultivation of the intellectual powers, do not require labour either so severe or so constant as that which must be undergone by a clerk in an accountant's office. Young persons are too often discouraged by the mere imagination of insuperable difficulty, of fatiguing exertion, of subjects of unfathomable depth, and of inquiries that rack the brain; all of which are commonly associated with the very idea of a philosophy class. They should be informed, however, that more labour and difficulty must be encountered, and that there is occasion for more patience, more fortitude, and more resolution, in the ordinary acquisitions made by the most common characters, than is demanded of the student, in order to understand completely the analysis, and mode of culture, of all the faculties of the human mind.

Hitherto we have been engaged in explaining the means of acquiring the habit of attention, in as far as these depend on the voluntary efforts of the student: there yet remains to be noticed the assistance which may be reasonably expected from the teacher. This, as might be anticipated, will be confined to the means which he possesses of stimulating to exertion, of rousing ambition, of kindling emulation, and of occasionally touching the sense of shame. In the improvement of the natural talents

of his students, he can bestow nothing but what he derives from themselves. The treasure with which he labours to enrich them, is in their own possession; and all he can do is to present motives strong enough to induce them to realize it, and to turn it to advantage. The ornament of learning, and the dignity of science, cannot be transferred from one man to another: they cannot be inherited; they cannot be bought with a price; nor can they be bribed by favour. The tax of labour which is imposed upon every great and noble acquisition must be paid by the individual who aims at it. The teacher, therefore, does not promise such assistance as will exempt from toil: he merely endeavours to awaken resolution, and to sustain perseverance. He watches the favourable moment to spread before the ingenuous minds of youth, those views and motives which are most likely to touch the springs of action. The rewards of industry may sometimes appear remote or uncertain, and, seen through that unfavourable medium, their efficacy, as a stimulus to application, may prove both weak and inconstant: but the atmosphere through which they are viewed, may be often rendered pure and transparent, by the aid of a vigorous imagination; and the independence or distinction which is longed for, may be brought so close upon the eye, as to rival the impressions of present existence, and thus to become the predominant motive of exertion, in the mind of the aspiring student. If the sanguine possessor of a lottery ticket, who may not have even the chance of one to a

hundred thousand, can so easily anticipate future events, realize fictitious scenes, and gratify himself with imaginary treasure; why should not the fancy of a student be invited, upon proper occasions, to wander amid those happy regions, in which he hopes one day to dwell; and thus to draw, from the rich stores of hope, a powerful solace for the fatigues and anxieties of the passing hour?

Nor is it the imagination only of his pupils to which the teacher may sometimes successfully address himself: he may likewise appeal to their reason and to their sense of duty. Every thing great and good may be brought within their view, as the object of a modest and rational expectation—the improvement of the highest and noblest powers of intellect—the possession of knowledge, taste, and eloquence—the enviable privilege of being useful—and the respect and affection of wise men. The secret thoughts of the students may, without offence, take possession of such situations in life as are most congenial to their taste or suited to their talents, and they may fancy themselves the legislators—philosophers—heroes—orators—poets, and statesmen, of future times; or,—as the venerable servants of God, in their high capacity of dispensing knowledge, comfort, and happiness, to individuals, to families, and to nations.

The observations just made, on the means of cultivating habits of attention, have extended to such a length, and embraced so many details, as to render it

less necessary to explain, with any degree of minuteness, the mode of culture applied to the other intellectual powers. In truth, the improvement of the latter depends so much upon the method of training, and exercise, recommended in the present section, that it would not be easy to enter upon it, in detail, without incurring the risk of repeating nearly all that has been already said.

ON THE IMPROVEMENT OF THE FACULTY
OF MEMORY.

A REMARK, applicable more or less to the cultivation of all the powers of mind, may be made, with peculiar suitableness, in regard to that of memory; namely, that its improvement depends more upon exercise than upon any rules of art. Indeed, frequent and regular exercise, on proper subjects, comprises all that can be recommended in the form of precept, relative to the culture of this important faculty. In the analysis given in the lectures, some notice is taken of the office and operations of memory, as distinguished from the other intellectual powers; and some observations are made as to the varieties which it manifests, in different individuals, in point of strength, readiness, and tenacity. That it is also susceptible of high degrees of improvement may be proved from the following considerations.

Memory in children is weak and unretentive, extending only to the few objects which produce marked sensations of pleasure or of pain. It receives, however, additions every day; and gradually becomes able to bear the burden not only of remembering a great variety of facts, but likewise the names or signs by which they are made known: thus continually enlarging its powers in proportion as the field of

knowledge is opened up and extended. In due time, all the words of the vernacular tongue are remembered; and, after one language has been acquired, the memory, even in its ordinary condition of vigour and improvement, so far from being oppressed with its load, seems only to become better prepared for further acquisitions of the same nature. When endowed with additional strength, from the maturity of years, and the progress of education, it comprehends the leading facts and principles of several sciences, altogether unconnected; and, in some individuals, it proves itself equal to the retention of nearly the whole stock of literature, of history, and of the more abstract doctrines of metaphysics and morals.—To return, however, to the main object of this section, it may be observed that the improvement of memory depends, in an especial manner, upon the three following circumstances.

1st.—To give ourselves a just claim to confide in the faithfulness of this faculty, it is essentially requisite to exercise attention, while the mind takes cognizance of objects, whether presented to the senses, or to the intellect: for, in proportion to the intensity with which the power of notice is exerted, the strength and tenaciousness of the memory will be progressively increased. Common phraseology, on this subject, clearly points out the general feeling of mankind, as to the connection between attention and reminiscence. “I remember it well,” we say, “because I bestowed the closest attention—I do not re-

member, because I gave little attention." It has been already shown that a habit of attention may be acquired; so also, then, may an improved habit of remembering.

2d.—The memory may be improved by a judicious selection of those things upon which it is to be exercised. As it is impossible to remember every thing, and as the capacity of this mental endowment, although extensive, is certainly limited, it greatly assists the process of recollection to disencumber it of all matter that is frivolous, or unimportant.

3d.—The memory is greatly assisted by arrangement. The details, facts, and principles, which claim the exercise of recollection, are so numerous and perplexed, that, to be able to recall them, in their proper relations, and to apply them to the various purposes of argument or illustration, it is absolutely necessary to class them under their several heads, and to connect them with leading associations. In truth, the different expedients now recommended, as being completely within the reach of practical discipline, all proceed on the well known principle, that the power of reminiscence is enlarged by strengthening the bond of association among the several parts of our knowledge; particularly among those which happen to have a common basis, or which bear upon a common object. The power of association is known to have very great influence in giving strength and facility to the operations of the memory. The

ancient rhetoricians founded on the principle of this connection an art, which they professed to value very highly, as an important aid to the power of reminiscence. The same invention has in modern times been carried so far as to defeat the object to which it was meant to be subservient. Good memories do not require its aid, and weak memories are hurt by it.

These subjects are illustrated at considerable length, and with copious details, in the lectures delivered to my pupils; and this particular topic is concluded with an account of some of the artificial methods for improving the memory, which have been adopted both in ancient and modern times: and with an attempt to account for a peculiarity of memory not uncommon, viz. extraordinary powers of retention united with inferiority of judgment, in the same individual.

ON THE CULTURE OF THE IMAGINATION.

IN the analysis of this faculty, presented in the lectures, it is stated, that its peculiar office is to reproduce to the mind notions and sensations formerly acquired by the ordinary exercise of the intellectual powers; and to render them once more the subject of other mental operations. In this way, the mind is empowered to contemplate, compare, and select the ideas of absent objects, as if they were actually present to the senses; and the representations, thus made, might almost be considered as another mode of perception; differing only in the reality and vividness of the impression.

It is further stated, that the operations of this faculty are general; extending to the reproduction of notions, or combinations of thought, as well as of sensible impressions, originally made on the external organs;—that it supplies, at once, the appropriate materials and the bond of association, for those intellectual processes, which are constantly going on in the mind;—and that it acts a principal part in those creations of fancy which, derived from a union of abstraction, generalization, and taste, constitute works of genius in the fine arts. The imagination, indeed, neither abstracts, nor generalizes, nor selects; but it reproduces, and supplies materials for these several processes according to the

laws of association which regulate the procedure of the mind, in its recollections and combinations.

It has been maintained that, as imagination is the gift of nature, it cannot be acquired, or even greatly improved, by any species of culture. This opinion, however, it is very evident, must proceed from a narrow view of its nature and offices; just as, in common language, a man is said to have no imagination, who discovers no marks of poetical fancy. There are, indeed, it will be readily admitted, certain peculiar and very singular modifications of this faculty; arising either from original differences in the constitution of mind, or from early associations afterwards forgotten; and this holds more particularly with respect to that variety of imagination on which poetic genius chiefly depends. But, notwithstanding these facts, it may fairly be asserted, that, with regard to this intellectual power, as well as all the other endowments of the mind, certain degrees of improvement are within the reach of every individual who earnestly endeavours to attain it.

In truth, the simple consideration that this faculty, like most others, is in a constant state of action, necessarily implies the notion of culture and improvement. In very young persons its efforts are weak, and its combinations unsteady; but, as the range of knowledge extends, and the number of ideas is increased, its growing power makes itself manifest in the vivid reproductions which it places before the

mind, and in the boldness of its varied creations. When Philip planned the conquest of Greece, or when Scipio and Polybius anticipated the destruction of Carthage, their imaginations must have been strong and steady enough to present, before the eye of the mind, extensive combinations of distant events respecting the relative state and condition of these nations, and the various probabilities which fell within their view. Imagination could not have performed for them this office when they first turned their thoughts to the study of politics. When Sir Isaac Newton began the study of astronomy, he probably found it extremely difficult to combine the revolutions of the earth and moon, in their orbits round the sun; but, in process of time, his imagination, with the utmost ease, placed before him the whole solar system, in the order of the relative distances, magnitudes, and dependences of the several planets which compose it. When Burke, at the time when many enlightened men in Europe were rejoicing at the pleasing prospect opened up by the French revolution, foresaw the confusion, anarchy, and bloodshed, which ensued, his imagination must have held up to him a long train of events, linked together as cause and effect, and must have manifested a degree of energy to which, in the early periods of his life, it would have proved totally inadequate. It is, therefore, very obvious that there is a gradual progress in the development of this faculty, and, consequently, that there is a fair field spread out for the application of culture.

It is well known, from experience, that the activity and consequent improvement of the imagination depend not a little upon the character of the objects with which it is first occupied. The great, the sublime, the beautiful, and the new, in external nature, are not only striking and agreeable in themselves, but, by association, are fitted powerfully to awaken the sensibilities of the heart, and to kindle the youthful imagination; whereas, there are objects so tame, and pursuits so ignoble, amidst which the early years of life are sometimes doomed to be spent, as neither to have produced one impression, nor excited one train of thought, which could ever afterwards enter into the conceptions, or aid the fancy, of the painter or the poet. If, therefore, the student permit objects which are mean, low, and sensual, to usurp possession of his mind; if the books he reads, and the studies he pursues, are contaminated with gross ideas, he has no right to expect that this omnipotent faculty shall ever draw, from the polluted treasures of his memory, any thing noble; or that his name shall ever be enrolled among those who have delighted and instructed the world.

But the imagination is not only improvable in point of vigour and activity; it likewise admits of culture, in respect of regularity and chasteness. No faculty is naturally more irregular in its motions, or more imperiously demands the control of a governing power. Whilst we are awake, indeed, it is kept

within some bounds by the presence of external objects, and by the impressions derived from these, through the medium of the senses; but, in a dream, those sentinels being off their guard, we have sufficient experience of its eccentric flights, and fantastic combinations. The first efforts of men of genius, in works of imagination, may be compared to the curvettings of an untamed colt, which scampers over the fields, spurning all constraint, till its strength is exhausted. It is not until experience, with its usual accompaniments of improved knowledge, and enlightened taste, has tamed the impetuosity of youthful feeling, that the faculty, now under consideration, becomes subjected to those regular movements of reason, sensibility, and passion, to which we owe the many fine specimens of poetry, eloquence, statuary, and painting, that adorn the brighter eras of civilized society.

These facts being admitted, it naturally occurs as a rational inquiry, whether there might not be constructed such a scheme of discipline, as would invigorate and call forth the latent powers of imagination? From what has been here stated, it can be no longer doubtful that many of the first steps, at least, are within the reach of a well-adjusted education; and, at all events, it cannot be maintained that the company, conversation, books, and studies, of young men have no influence in determining their general taste, as well as the bias of fancy. The control and direction now alluded to, indeed, do not

properly come under the common forms of education, which, generally speaking, are calculated for the improvement of the reasoning faculties rather than for that of the imagination: still, this circumstance by no means precludes the possibility of arranging such a course of academical study as might extend the means of culture to the latter power of mind as well as to the former. Such an attempt is humbly submitted, in the details to be given in a subsequent part of this work, respecting the plan of instruction, and discipline, which is regularly followed out, in the first philosophy class of this university.

It has been contended, with respect to that variety of the faculty of imagination which the poet possesses, that it is not susceptible of culture. "*Poeta nascitur, non fit.*" This maxim ought to be understood with some limitation. We should not readily admit, that any of the intellectual powers (and the power of reproduction is one of them) is incapable of improvement. From certain varieties, which no doubt subsist in the original constitution of these powers, from early habits and particular associations, the imagination of some persons may be more early directed to sensible imagery than to other trains of thought—but in all cases, the imagination is within the reach of culture, when applied judiciously, and at a proper season. Though it be true that great poets are distinguished by original differences of activity and strength in their flights of imagination; and true, also, on the other hand, that

no degree of labour or of industry can raise a weak or feeble imagination to high degrees of poetical genius; still, it may be maintained that, by seasonable culture, this power can be made capable of greater efforts, and invested with higher qualities, than arise from the mere natural and unimproved endowment.

The lectures in this section are brought to a close, with some remarks on the happy effects, resulting from an improved imagination, on the intellectual and moral powers of the human mind; particularly, as connected with vivid anticipations of futurity; with the honourable rewards of virtuous industry; and with the deep disgrace attending idleness and vice. Could the teacher conduct the imaginations of his pupils, with clearness and force, into those distant periods when they must exhibit the proofs, and experience the effects, of a good or bad education;—could he make them see now, as clearly as they will see hereafter, the respective consequences of diligence and perseverance, and of neglect and sluggishness, on their fortune and character in the world;—could he show them the attentive and ambitious student, whose example he now recommends to their imitation, outstripping them in the path of distinction and credit—realizing the objects to which they had faintly aspired—loved, admired, and respected, whilst they pass on, unnoticed, in the crowd of vulgar characters;—could he bring home such things to their imagination, it is next to impossible but that

such impressions must be produced, as would rouse the most careless to exertion.

The account which has just been given of the peculiar functions of the imagination, may serve to correct a mode of phraseology, not uncommon in speaking, and even in writing upon this subject. Imagination is sometimes viewed as a moral faculty; having applied to it the epithets of virtuous, vicious, chaste, and debauched, in reference to the predominant sentiments which may happen to be cherished by different individuals. It is evident, however, that the application of such terms to an intellectual power, is an abuse of language; and that it is only to the passions and affections of the mind, which constitute, not the contemplative but the active principles of our nature, that moral qualities ought to be ascribed. In reproducing the notions and sentiments which accord with the prevailing character of individuals, imagination can only be blamed as an obedient, obsequious slave, equally ready to minister to the sacred uses of virtue and to the unhallowed demands of vice. This criticism may, perhaps, seem trivial, as being directed against a popular manner of speaking, rather than against any philosophical heresy; but, in explaining these subjects to young persons, nothing can be unimportant which contributes to clearness of conception, and propriety of language: and it is unquestionably a very exceptionable mode of procedure to ascribe to one faculty the results which belong to another, and to confound, in the same perplexed

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mass of thought, the operations of the imagination, of attention, of abstraction, of generalization, and of moral sentiment.

ON THE IMPROVEMENT OF THE POWERS OF
JUDGING AND REASONING.

THE office of the faculty of reason has been already explained in the analysis which has been given of the intellectual powers. It may, however, be proper to repeat, that every act of reasoning implies a process of perception, comparison, and inference; and hence it is that, upon the improvement of the latter powers of the mind, the perfection of the former is found chiefly to depend. If our perceptions be distinct and accurate, our conclusions will seldom be faulty; for, it is obvious, that the more correct our knowledge is of the objects about which we reason, the more just will be our inferences in regard to their properties and relations.

When, therefore, we complain that reasoning is inaccurate or inconclusive, we very often apply to one faculty the imperfection which, in truth, belongs to another. The perception has been indistinct, and the judgment, consequently, could not be either clear or sound.

This principle will enable us to explain a fact which has met the observation of every one; namely, that many persons, who know nothing of the rules of logic, are yet found, in conducting the common affairs of life, to form very just opinions respecting the

objects of their several trades, professions, and interests. They have had opportunities of knowing intimately all the particulars upon which their judgment is to be exercised; and they have also the strongest inducement to arrive at accurate conclusions: on which account, as has just been remarked, their reasoning, though not logically pursued, is far from being deficient either in clearness or in truth. But the same persons would not be able to reason with equal accuracy, about the doctrines of liberty and necessity; or on the tenets which so long divided the nominalists and realists; or, on the theoretical points which respectively distinguish the Huttonian and Wernerian systems. In short, whenever the subject on which the reasoning faculty is employed, is of an abstract or complex nature, recourse must be had to the logical instruments of *definition*—to point out the essential and discriminating qualities of things—and of *division*, to assist in forming distinct notions of the whole, by discovering what belongs to each of the parts of which that whole is composed.

The common object of the faculties of judging and reasoning is to discriminate and determine the various relations which subsist among the different subjects of our knowledge. The term *judgment* is applied, when, by alternate attention to two objects in juxtaposition, the relation between them is discovered. The term *reasoning* is used when that relation cannot be discovered but by means of a

comparison instituted between each of two objects, and one or more intermediate ideas, having such an affinity to both as will point out the extent of their agreement or difference. Thus reasoning is only an expedient or artifice, adopted by the mind, for arriving at a conclusion, when the terms of a proposition involve such a degree of obscurity as cannot be penetrated by simple intuition; and, accordingly, though the power of employing that resource may be regarded as a mark of superiority in man, when compared with the lower animals, it is no less a proof of his intellectual weakness, when he is compared with beings of a higher order. These may be able to perceive, intuitively and without effort, truths at which we cannot arrive without the painful and tedious process of ratiocination: and we thus find ourselves placed between those who cannot reason and those who do not need to reason—between those who are unable to detect the relations of things, and those who perceive them at a glance. May it not be on this account, that, whilst in scripture the term judgment is often applied to the Supreme Being, the term reasoning is nowhere associated with the exercise of his high attributes.

That these important faculties are susceptible of cultivation, is manifest from the degree of improvement to which they attain, even in those conditions of life which seem least favourable to their development. In rude nations, and in civilized communities, too, as far as respects the mass of human beings, no

artificial means are used to call forth the natural powers of reason; and yet we find, that, even in these circumstances, there is a beginning, and, in some cases, a remarkable degree of proficiency, in the use of the intellectual energies. The child no sooner receives, by means of the external senses, sensations and notions, than he begins to draw inferences concerning their objects, and to lay up his knowledge in the stores of memory; whence it follows, that, in proportion as those faculties are improved by which we acquire perceptions and ideas, so also are the powers of inference and deduction gradually expanded and invigorated.

It is by minute attention, therefore, to the progress of the reasoning faculties, in the different situations in which man is placed, that we shall most successfully lay the foundations of an art of reasoning; for here, especially, according to LORD BACON, we must obey nature; observe her dictates; and follow the course which she prescribes. She imperatively enjoins that the first efforts of art should be directed to the improvement of those powers of the mind by which we form clear, just, and distinct notions—by which we discriminate likeness, difference, and relation, among the various subjects of our knowledge—as being the only solid basis for an enlightened deduction. It is, indeed, impossible to teach men to reason, until they have been first taught to know; that is, to form clear and accurate conceptions of the things about which they are to reason:

and, when the former process shall be correctly accomplished, few rules will be necessary to direct them in the latter. Thus, in the different professions and occupations of life, we find that men reason, easily and justly, from mere habit, and without the assistance of an artificial logic; because, from their daily pursuits, they have formed distinct notions, relative to the several objects about which their reason is employed.

But though, by this natural logic, as it may be called, the understanding may be so improved as to answer all the practical purposes of life, it frequently happens, in certain cases where a man is called upon to exercise his reason, that the assistance of art may be extremely useful. When the objects presented to the mind are of an abstract, general, or complicated nature, the logical instruments of definition, division, and classification, may be applied with great advantage: and, when, in the comparison of different objects, of which the relations are so remote or obscure that they cannot be discovered but by means of intermediate ideas, connected with both extremes, the faculty of reason finds, again, resources in art; which, by suggesting certain positions and arrangements of thought, leads the mind, by safe and easy steps, to the perception of truth. We have, accordingly, received, from the philosophers of Greece, an art for improving and directing the power of reason—a system of rules according to which, in particular cases

at least, comparisons may be fairly made, and conclusions justly deduced.

Before the time of ARISTOTLE, to whom we are indebted for the art now alluded to, PLATO, and other philosophers, had been convinced that, to prepare the human understanding for the search of truth, a certain process of systematic discipline was absolutely necessary. These great men, however, confining their attention to those faculties of intellect, by the operation of which sensations and simple ideas only are produced in the mind, proceeded no farther than to construct rules for definition and division. But Aristotle, taking a more extended view of the intellectual powers, and availing himself of all that had been done by others, formed an art calculated, as he hoped, to carry the powers of reason to the highest pitch of perfection. Observing the great progress which had been made in geometrical science, he conceived the project of introducing into other branches of philosophy the clearness and certainty by which that science is distinguished; without duly advertng, perhaps, to the essential difference between geometry and almost every other department of human investigation.

The distinguishing feature of Aristotle's logic is the *syllogism*, of which he is justly to be considered as the inventor; although some writers, upon very insufficient grounds, have ascribed it to a still more ancient philosopher. The *syllogism*, as every one knows,

is a sentence expressing a single act of reasoning—that is, a comparison of each of two objects with a third or intermediate object; and containing, also, an affirmation of the relation subsisting between them, discovered by means of that comparison. This sentence or syllogism, it may be remarked, consists of propositions—and propositions consist of subjects and predicates: on which account it is obvious that, to understand the structure and laws of the syllogism, it is previously necessary to enter upon the doctrine of predicables, and categories; the former relating to the classification of properties, or the ideas which are predicated of things; the latter to the classification of things themselves, or the subjects concerning which predicables are employed.

As the qualities belonging to material and mental objects are extremely numerous, no attempt has been made to estimate their exact amount. It has been thought sufficient to form a kind of classification of predicables, according to the extension, or generality, of the notion which they imply: but the categories, or classes of things forming the subjects of propositions, have been reduced to the number TEN.

The principle, or axiom, on which the conclusion of the syllogism depends is, that whatever can be affirmed or denied of a general class or kind, may be affirmed or denied of all particular classes contained under it; and the application of this principle, in the

construction of the syllogism, is, in the first proposition, to affirm or deny something of a class of objects; in the second, to affirm or deny that some particular object is a member or part of that class; from which it necessarily follows, that what has been affirmed or denied of the whole, may, in the conclusion, or third proposition, be affirmed or denied of that particular part. But, as the subjects and predicates are terms which may have a greater or less extension, or in which the extension of one term may be contained in another, it becomes of importance to give these terms such a position, in the syllogism, as will readily point out the cases in which one term, in respect of quantity, is comprehended in another. For this purpose, general rules are supplied, to determine the relative positions of the terms, according to their extension and comprehension; and particular rules are, in like manner, constructed, to meet the corresponding particularities in the arrangement of the subject and predicate. This is the substance of what is meant by the *moods* and *figures* of the syllogism; and, in the lectures on this part of the course, examples are given, to illustrate the various statements now so briefly sketched out, and to render the whole more intelligible to the youthful student.

Much ridicule and contempt has been thrown upon the syllogism, in modern times, by a class of writers who overlook the object which its celebrated author had in view. For example, it is often urged, that

sylogistic reasoning is altogether ineffectual, as an instrument for discovering new facts in science, or even for the acquisition of general knowledge. But it is very clear that Aristotle never meant it to be an instrument of discovery. Is it to be supposed that this acute philosopher did not perceive that the major proposition of a syllogism always contains a general truth, from which the truth contained in the second is immediately drawn, and upon which, in fact, it is necessarily founded; and, consequently, that the second could never contain more than is contained in the first? He introduced it merely as a direct and certain method of reasoning, by three terms, on subjects where the two things to be compared, and the third, with which they are to be compared, could be distinctly expressed: thus constituting an excellent standard to ascertain the accuracy of a complex argument; inasmuch as, by resolving it into separate propositions, we are enabled at once to discover the relation of the several parts, and the connection of the whole. In this analytical process, the rules of syllogism direct the logician to find out, in the first place, what is asserted, or denied, in the general proposition; then to satisfy himself whether the assertion of the second proposition is fairly contained in the first, or general, proposition: and, lastly, to examine whether the inference, or conclusion, contained in the last, be a legitimate and necessary deduction from the comparison of the ideas instituted in the two former propositions. In this manner, vague reasoning, and inconclusive argu-

ments, which are frequently concealed under a multiplicity of terms, and an excessive copiousness of language, may be brought to the test: for the student is thus enabled to determine both the general truth upon which the whole chain is suspended, and the particular truth which is contained in every link of it.

It has, accordingly, been reported of the great LORD MANSFIELD that, on one occasion, when pleading at the bar, he was confounded and perplexed with an argument which he was convinced was false, but of which he could not detect the sophistry: and that, upon going home, and throwing the various propositions of which it consisted into the syllogistic form, he instantly discovered the fallacy. Indeed, it may be safely asserted that, had not the merits of the syllogism been, at one time, greatly exaggerated, and the mode of reasoning founded upon it been applied to subjects for which it was neither calculated nor intended, it would still have been considered as an useful part of the art of reasoning; and, at all events, would have been exempted from that ridicule with which it is now almost universally regarded.

The syllogism is unquestionably founded upon a just analysis of a single act of the reason; for, in every comparison which the judgment makes of two things with a third, in order to discover a relation between them, it necessarily forms a mental syllogism, whether the process on which it rests be expressed

in two propositions, or in three. Thus, to take a very familiar instance, when I use the following enthymeme; "The sky lowers, I shall put on my great coat," the mind passes rapidly from a comparison of the present state of the atmosphere to the recollection of similar appearances, on a former occasion, when rain actually fell—and then, from the fall of rain, associated with these appearances, it goes on to something which was done in consequence of that event, on the occasion alluded to. In this respect, the manner of expressing the inference drawn by the mind, although it does not strictly coincide with that employed by the mathematician, implies the very same train of thought; the only difference is, that, before he can pronounce the line A equal to the line B, because both these lines are equal to a third line C, he must bring forward all the three terms, and incorporate them into three separate propositions, constituting a regular syllogism.

In this part of the lectures, an abridged narrative is introduced of the reception given to the syllogism in ancient and modern times—the causes of the universal admiration conferred upon it at one period, and of the neglect into which it fell at another—the discovery of its imperfections and defects—and the substitution of the inductive mode of reasoning—together with some remarks on the plans of reform in the art of logic which have been proposed by certain philosophers of the present day. These subjects admit of useful detail, and lead to many interesting

anecdotes; and they are subjoined to this part of the course, not only for promoting the general information of the student, but more particularly with the view of encouraging speculation and inquiry, as well as for supplying him with suitable materials for conducting the practical portion of the business which is assigned to him by the established discipline of his class.

It does not appear, (and it is a fact worthy of attention,) that, at any period of the Greek philosophy, subsequent to the age of Aristotle himself, the syllogism was much used in reasoning, whether in physical science, or in that of mind. Indeed, the term is scarcely to be found in any other Greek author; whilst the syllogistic mode of argument does not seem to have been employed even by the philosopher himself, with whose name it is so closely associated, in any of his writings, the *Analytics* excepted. An accident, formerly mentioned, which happened to the manuscripts of Aristotle, soon after his death, had nearly buried them in oblivion. Upon their recovery, they fell first into the hands of Theophrastus, his immediate successor, who bequeathed them to one Neleus, his heir; and the latter, proud of possessing such a treasure, and afraid lest the precious deposit should be seized by the king of Pergamus, who, was then collecting manuscripts for the Alexandrian library, concealed them in a cellar, at Scepsis, where they lay for more than a hundred years. Rescued from this cellar, after hav-

ing sustained, it may be imagined, no slight degree of damage, they were purchased by a disciple of the peripatetic school, and transmitted once more to Athens; where they were subjected to such a variety of corrections, amendments, and, probably, interpolations, as have injured them, it is feared, to a still greater extent than the damp walls of Scepsis. After enjoying an asylum, during several ages, at that celebrated city, the Aristotelian manuscripts were, by the dictator Sylla, carried to Rome: and to this event we may ascribe the rapid progress which the peripatetic doctrines made among the Latin philosophers, during the reign of the first emperors, as well as their subsequent triumph over the opinions of Plato, so long admired by the sages of the western world, and so much in unison with the heroic character of the Romans.

We are here forcibly called upon to remark the strange and unexpected vicissitudes which occur in human affairs. When the MSS. of Aristotle were brought out of the cellar at Scepsis, who could have supposed that they were one day to engross the attention of a great part of the civilized world; to become the principal study of all men of learning; the great object of a liberal education; the means of raising their author to a higher pinnacle of literary fame, than any man, either before or since his time, has enjoyed; as also, of procuring for him, an absolute despotism of opinion for the space of nearly two thousand years? An event so singular, and certainly

so unexpected on the part of Aristotle or his immediate disciples, shows how imperfect our knowledge is of the secret causes and combinations which silently, but certainly, bring about the most important revolutions in human affairs.

The philosophy of Greece being thus placed in the hands of the Romans, it becomes a subject of much curiosity and interest to trace the progress of opinion among that people, as modified by the views of their more enlightened neighbours. We learn, indeed, from an incident mentioned by Cicero, that, in his time, the reputation of Aristotle, as a philosopher, was very little known in the capital of Italy. Trebatius, a friend of the orator, found him one day in his library; and, observing a book entitled "*De Locis*," asked him who was the author of it? Cicero answered, that one Aristotle, a Greek philosopher, was the author; and that it was a book which deserved to be better known. This anecdote affords a proof, at once, of the slow progress of Aristotle's fame, in the last age of the republic, and also of the correct opinion which Cicero, individually, had formed of his character.

An account is here introduced of the various causes which first drew the attention of the scholastic philosophers to the works of Aristotle, and which contributed so much to create that authority for his opinions, and veneration for his character, which, prior to the revival of learning in Europe,

had raised him almost to the rank of a divinity. I mention, too, although in a still more abridged form, the efforts which were made by some foreign philosophers, particularly Ramus, Descartes, and Leibnitz, to introduce into science a new method of investigation. In this retrospect, we find that, in some countries, and especially in France, it required more than the strength of reason, and a conviction of utility, to pull down the syllogistic fabric which had been so long established. The Aristotelians, it is well known, conscious of weakness, and perceiving, every where around them, symptoms of a rapid decline, threw themselves upon the protection of the state, and were but too successful in engaging the strong arm of secular power, to put down their antagonists. In this crisis of affairs, so likely to prove decisive against the cause of philosophy, BOILEAU, the celebrated satirical poet, came forward with the powerful weapon of ridicule, in support of science, reason, and common sense. While the adherents of the old school were endeavouring to secure for their interests, the authority of the Parliament of Paris, Boileau published a mock petition, in the name of the professors and students of the universities of that city, craving an interdict of the court against two strangers, Reason and Experience, who had endeavoured to shake off the yoke of the said Aristotle, and to banish from the schools his formalities, entities, identities, virtualities, &c. This petition, executed with infinite humour, was followed by a favourable edict, supposed to be pronounced by the court, and

expressed in the formal style of such deeds, re-establishing Aristotle in the full and peaceable possession of all his rights and privileges in the schools; and subjecting the factious vagabonds, Reason and Experience, to fine and imprisonment.

This piece of pleasantry, which was read by every one, did material service to the cause of philosophy and common sense, striking at the root of those prejudices which sober argument had in vain endeavoured to assail. The doctrines of the reformers, accordingly, were every where seen gaining ground; while the props of the Aristotelian system gave way, one after another, leaving the magnificent fabric to fall by its own weight.

The principal attack, in Britain, upon the doctrine of the schools, was made by LORD BACON, so justly celebrated for his grand and philosophical views, and for the complete success which has crowned his undertaking. This distinguished writer far surpassed, in knowledge and sagacity, those continental philosophers who first lifted their hands against the ancient logic. Accordingly, he succeeded where they had failed, and not only levelled with the ground the stately edifice upon which they had commenced the assault, but, what was incomparably more difficult, erected in its stead a building at once more noble and more durable.

In this part of the historical sketch, of which I

now present the mere outline, an attempt is made to communicate to the students the train of thought which occupied the mind of that great man, and to point out to them the cautious and gradual steps by which he proceeded from the beginning to the happy conclusion of his mighty project. They are conducted to the starting post, as it were, from which Lord Bacon set out; they travel along by the side of that learned and judicious philosopher; they enter into his secret resolves and purposes; following him, with increasing interest and delight, in every subsequent stage of his progress, and through every scene of his manifold triumphs. No exercise can be more conducive to the improvement of young minds. The gradual disclosure of his great plan tends to enlarge and to enlighten their understandings; his method of philosophizing is the best example to guide them in similar investigations; and the brilliant success which attended his labours is calculated at once to excite and to encourage them to prosecute their studies with perseverance and alacrity.

It was natural for such a mind as that of Lord Bacon, well acquainted not only with ancient literature, but with the learning and philosophy of his own country, to be deeply struck with the survey which he had taken of their origin and progress, compared with the actual condition in which he found them. From the period of the Greek philosophy, down to his own time, he perceived that, instead of advancing to higher degrees of perfection, the doctrines of both

Greek and Roman philosophers had been corrupted and disfigured by the ignorance, or superstition, of every succeeding age; and that even the ancient languages themselves were almost lost, or very generally neglected. No discovery in science, no invention in the arts, and no addition to the stock of political knowledge had graced the annals of that lengthened period. Not satisfied, however, with the general conviction, arising from these facts, that the method of inquiry followed by the school philosophers was radically defective, he resolved to institute a still more minute survey of the actual condition of science and of art, with the view of ascertaining the exact point to which each of them had been carried—to mark their imperfections, or inaccuracies—and, above all, to separate the things which philosophers had explained from those which they had either not attempted to explain, or had failed in the attempt. And to secure, for the future, a greater share of success, by establishing a more rational method of investigation, he endeavoured to penetrate into the remote sources of error, and to guard the student against the natural biasses of the mind, as well as against those which have their origin in education, custom, or authority.

Having ascertained that no material progress had been made in any department of human knowledge, during the lapse of many centuries—that the seeds which had sprung up and looked so vigorous, in the philosophical ages of Greece and Rome, had never

arrived at maturity—and being satisfied, at the same time, that this want of success did not arise from any defect in the genius, or talents, of the scholastic authors; (there being, even in their errors and perverse mode of investigation, abundant proofs both of acuteness and perseverance;) he concluded that the unpromising condition of science was altogether to be ascribed to an unnatural system of philosophizing, encouraged by the spirit, temper, and pursuits, of those bigoted times. Fixing, in this manner, upon the ultimate cause of the effect which he had taken into consideration, and viewing more closely the unwieldy instrument of inquiry then in general use, in connexion with all its properties and imperfections, he boldly pronounced this memorable sentence: That the ancient instrument of science was altogether incapable of amendment or improvement; that no partial specifics could be of any use; and that no effort of human skill could ever render it fit for promoting the discovery of truth, or facilitating useful inventions. He found, in short, that Aristotle, in the very first step which he took in the formation of the syllogism, had confined his method of reasoning to abstract and general truths—that he had set out with a general proposition containing in it, of course, the particular truth which was afterwards to be evolved by the structure of the syllogism; and that, consequently, his instrument of investigation could never be applied to the discovery of truth, by a regular deduction from facts, from experience, analogy, probability, or testimony. He maintained that the

natural access to science was obstructed by the very means appointed for its cultivation; and that, as particulars precede generals, in the order of observation and experience, what was then placed first ought to be placed last, in the order of scientific inquiry.

Freed from the trammels of the ancient philosophy, and anticipating, with steady view, a more enlightened condition of science and of art, he assured mankind of complete success in all their endeavours, provided they would relinquish the absurd practice of following out their inquiries by means of an artificial logic, and adopt the natural method of investigation, of which all men, except philosophers, had made use in their ordinary pursuits. He declared, moreover, that the natural method which he recommended was altogether incompatible with the slightest adherence to the syllogistic logic, as an instrument of science; and that, to render the reformation available to the purposes of genuine philosophy, it must be radical and complete. "*Frustra expectatur, augmentum in scientiis ex superinductione novorum supra vetera. Instauratio facienda est ab imis fundamentis, nisi perpetuo circumvehis cum exili et quasi contemnendo progressu.*" He hoped, by the aid of experience, founded on observation, and guided by judgment, to change entirely the state of philosophy, and to teach mankind one art which should minister to the improvement of all others.

ON THE BACONIAN METHOD OF INDUCTION.

ALTHOUGH the method of prosecuting philosophical inquiry, by means of induction, has been generally associated with the name of Bacon, it is not to be understood that he was the inventor of that method. No man ever taught another his first induction. It is a mode of inference which, by the constitution of his mind, the human being is prompted to pursue; which regulates his procedure in the ordinary affairs of life; and which would have guided him, with equal steadiness, in the department of science, and general reasoning, had he been allowed to listen to the dictates of nature. It was only by bringing back man to his natural, unsophisticated condition, as an intellectual creature, that Bacon introduced the inductive method into philosophy. Nor is it to be imagined that Aristotle was ignorant of induction, because he did not admit it into his *Analytics*. On the contrary, he exhibits, in many parts of his multifarious works, the most satisfactory evidence that, while he employed his leisure in constructing an artificial system for others, he himself followed the simpler process of nature; and, in his politics, for example, he endeavours to establish the principles of good government on an induction, or, more properly, perhaps, an enumeration of particular facts, drawn from the consideration of certain forms of government which had actually existed.

The young student may require to be informed that a mere enumeration of facts is to be carefully distinguished from an induction. An inference drawn from an enumeration can extend no farther than to the particulars enumerated; as the sum total in addition is neither more nor less than the amount of the units contained in it. An induction, on the contrary, always implies the discovery of a principle, as well as the knowledge of particular facts; and every inference grounded upon an inductive process is, when technically expressed, the enunciation of a law of nature. It is, in short, a general truth, derived from the consideration of common properties in individual facts.

In this part of the lectures, an analysis is given, and fully illustrated, of the inductive process according to the views of Lord Bacon. It sets out upon the principle, already in some degree explained, that, when we observe, in many individual substances, the same properties and powers, we ascribe these properties and powers to the whole class of which these individuals constitute a part. For instance, it has been found, upon trial, that this, and that, and many different bodies, gravitate to the earth; hence, although experiments have been made on comparatively very few members of the numerous varieties of substances, it is concluded, that all bodies gravitate to the earth. By a similar process, too, upon observing that lead sinks in water, and cork swims on its surface, we arrive at a second induction, or law of nature, relative to gravitation, as being regulated, to

a certain extent, by the specific weight of the gravitating body, compared with the density of the medium through which it descends. It is, also, upon a principle strictly analogous, although somewhat different in its origin, that we believe that the sun will rise to-morrow, and that the tides in the ocean will continue to ebb and flow, in all time coming, as they have hitherto ebbed and flowed: for, when such expectations are fulfilled, in an indefinite number of instances, they are immediately succeeded by complete assurance, or absolute certainty, founded upon a firm conviction, that the laws of nature will continue to act, hereafter, as they have all along acted, since the beginning of the world.

A description is here introduced of the cautious and vigilant character of the Baconian philosophy—the severe maxims upon which experiments are to be conducted—the number of trials—the exact or imperfect similarity of cases—and, above all, the watchful scrutiny into contradictory instances, and false appearances. An account is also given, in this part of the lectures, of what Lord Bacon calls his *ascending* and *descending scales*. By the former of these processes, as might be conjectured, the mind advances from particulars to the next more general step, and proceeds again, in the same way, to others still more general; till, by a series of progressive movements, it arrives at the most general conclusion, or law of nature. In the order of the descending scale, the mind sets out in possession of these laws

of nature, or general doctrines; and, thereafter, applies them, with the characteristic caution and reserve of the Baconian school, to the explanation of particular phenomena.

It naturally occurs, in this part of the lectures, to observe, that the mistakes into which men have fallen, in the prosecution of the inductive method, are to be ascribed not to this mode of reasoning, but to the reasoners themselves; and, particularly, to their neglect of the several marks by which a perfect is to be distinguished from an imperfect induction. They have persisted in overlooking minute differences, in cases apparently similar; or they may have drawn a general conclusion from too small a number of instances, seizing upon a principle not sufficiently established by decisive experiments. Hence, it has come to pass that more false theories, and dangerous notions, have arisen from hasty inductions, than could ever be imputed to the use of the syllogism. Omens, prodigies, lucky and unlucky days, of which we read so much in ancient history, are all to be traced to hasty inferences, from facts either not inquired into, or not clearly understood; as are also those mystical associations which subsist in the minds of most men, between the occurrence of one event and the expectation of another; which the most enlightened education has often been found unable completely to dissolve.

Such is the Baconian instrument of science, as

described in that author's works *De Augmentis Scientiarum*, and *Novum Organum*: and no plan of study, certainly, was ever more fully justified by success. It is truly surprising to learn how soon, and how widely, the spirit of his philosophy pervaded every department of science. The student of nature, at once, forsook the ancient method of philosophizing, and eagerly followed the directions of Bacon, in investigating the laws of the material world. Previous to this epoch, natural philosophers undertook to explain all the phenomena which presented themselves in the heavens and the earth, upon mere hypothesis; and, when they had succeeded in moulding their conjectures into something like a system, supported by a few plausible appearances, they imagined that they had penetrated into the inmost recesses of nature, and disclosed her most secret contrivances. Descartes, for example, observing, as he himself informs us, that chaff is carried round in a vessel full of water, and passively yields to the fluid in which it is supported, concluded that the revolution of the heavenly bodies, in their orbits, was a case precisely similar—that they, too, were carried round in a fluid of a peculiar quality:—and, then, as was to be expected from his fertile genius, he created for them a medium wherein they might eternally float, and gave to them a degree of motion, corresponding to the times and periods of their respective circuits. But, what appears still more wonderful, this confused and ridiculous imagination of Descartes was received, with respect and admiration, by the philosophers of that age; and even

continued, during no small portion of time, to divide the opinions of the learned, with the simple theory of attraction so admirably unfolded by Newton. As well might we listen to the conjectures of a child, relative to the construction and equipment of a man-of-war, as to a philosopher who was guided solely by his fancy; and yet this egregious trifling, under the cloak of science, which makes us blush so often for the weakness and presumption of the human race, might have continued until our own times, had not a new method been devised of interpreting the laws of nature.

Among the many happy effects resulting from the reform introduced by Lord Bacon, may be mentioned the encouragement which was thus held out to men, in every country and condition of life, to enter upon the study of nature; and, by observing, comparing, and recording facts, to contribute their share to the common stock of knowledge. Philosophy was now brought down to the level of ordinary abilities, and was prosecuted according to the natural conceptions of mankind. A new and easy path was opened up, in which not only the learned, but the studious and inquisitive in every rank of society, might walk with safety and success. It was soon after his time, accordingly, that the republic of letters, properly so called, received its establishment, and was endowed with the true riches of genius and freedom. Societies were formed for the express purpose of collecting and circulating

knowledge. Kings and princes encouraged the rising spirit of industry and research. Theory and experiment, speculation and practice, went hand in hand; and a reasonable prospect was now entertained of uniting the labours and genius of all the nations on the face of the earth, in promoting the interests of science. Never could it be more truly said that "Wisdom was justified of her children:" for, soon after this great luminary appeared, a band of ingenious men arose, who made the most striking discoveries in natural philosophy. A late French writer, Degerando, has given the following enumeration: "Torricelli announced the pressure of the atmosphere. Harvey discovered the circulation of the blood. Huygens perfected the telescope, and applied the pendulum to clocks. Leuenhœck, by his microscope, laid open a new world which had formerly been concealed. Boyle engaged in his physical experiments. Halley attempted a theory of the comets. Bradley subjected to regular laws the aberrations of the fixed stars. The great Newton analysed the rays of light, and taught the gravitation of worlds."

Though Bacon directed the application of the inductive method of reasoning chiefly to the discovery of the laws of the material world, it may be also applied, in its leading principles, at least, to investigate the properties and laws of mind. It is true, experiments, literally of the same kind with those to which matter is subjected, cannot be made upon the thinking substance; but no one will deny that experi-

ments, equally well adapted to the nature of mind, may be contrived, and executed with success. Thoughts cannot be treated with a menstruum, nor can opinions be decomposed, by any known process. It is not, therefore, in the common acceptation of the term that the pneumatologist speaks of experiments on mind. The object, however, which he keeps in view is strictly analogous to that of the astronomer or chemist:—viz. a faithful interpretation of the laws of nature. The facts upon which he proceeds may, perhaps, be more closely connected with observation than with any actual trial; and it would be extremely nugatory to dispute about the use of a word, when applied to things so essentially different as matter and mind. The knowledge obtained, in either case, is the result of attention, comparison, and sound reasoning, founded upon a careful examination of facts: and in this, more than in actual manipulation, consists, it is presumed, the true spirit of the Baconian philosophy. Observation and consciousness are, indeed, the only instruments which the mental philosopher can employ, in collecting the facts, and tracing the operations, connected with the intellectual and moral faculties of the human being; but these he can use in all places, and in all circumstances, by night as well as by day, on the mountain, or in the valley, in society, or in solitude, in the company of wise men, and even in the company of fools.

In truth, although Lord Bacon, as has been already observed, applied his method of induction

chiefly to natural science, the spirit of his philosophy was soon, likewise, extended to the study of mind. Mr. Locke, in his *Essay on the Human Understanding*, followed exactly in the path which Bacon had pointed out; and as he was the first who attempted an analysis of the mental powers, uninfluenced by the love of hypothesis, his work may be regarded as a real history of thought and feeling; while all former treatises could be considered in no other light than pneumatological romances. It is true, indeed, neither Locke nor any one of the great philosophers who have succeeded him in this department, such as Hutcheson, Hume, Smith, and Reid, has left any system or treatise on the art of reasoning, as peculiarly applicable to mental inquiries; but their works contain many excellent specimens of the Baconian logic, on intellectual and ethical subjects, and prove, by their successful use both of analysis and synthesis, that this mode of investigation may be profitably pursued in the philosophy of mind, as well as in that of body. The volumes of Hume, for example, present the most perfect specimens of close reasoning and logical deduction: but no one of the great men now mentioned, has shown himself a more intelligent, or more faithful scholar of Bacon, than Reid. To uncommon candour and genuine simplicity, this celebrated philosopher added an absolute command of his attention, great powers of discernment, and an indefatigable industry, uniformly directed by the love of truth. No other writer has so well delineated the method of studying mind;

and no one has treated metaphysical subjects with so much perspicuity. But, on this particular topic, the author of these remarks may, not without some justice, be charged with partiality. He studied under him as a professor; and, during the last twenty years of his life, lived with him in habits of the most familiar friendship; enjoying, thus, the happiness of such frequent and unreserved communication, as to make it now extremely difficult to distinguish thoughts and sentiments suggested by that excellent person from those which may have been derived from other sources.

Considering the nature of the reformation brought about by Bacon, and viewing it, as it ought to be viewed, in the light of a simple return to the principles of unsophisticated reason, it was not to be expected that any material addition to the rules of investigation, considered as an art, could be made, either by his immediate successors, or by more modern philosophers. The *Novum Organum* professed to accomplish little more, than to induce men to reason on philosophical subjects, as they are accustomed to reason in the ordinary affairs of life; to rescue them, in short, from the dominion of art, and to restore them to the clear light, and unfettered liberty, of nature.

It is, however, made a subject of complaint by several distinguished writers, both at home and abroad, that a philosophical or rational system of

logic, embracing every thing which ought to be comprehended in such an art, is still a desideratum in science. Degerando, a French philosopher of great eminence, lamenting the manifold imperfections of all former attempts, has suggested a very comprehensive plan, which he describes with much minuteness: constituting, according to his views, a system of logic, solid in its principles, practical in its precepts, satisfying every demand, preventing all doubt, embracing every form of argument, directing all methods, and accompanying the mind in all its operations. This rational system of logic he divides into six parts. He proposes, in the first division, to begin with an analysis of the operations of the mind—of the faculties employed in these operations, in their simple and combined state—or, in other words, to give the history of the formation of thought in every individual. The second part comprehends an enumeration and classification of the precepts which ought to direct mankind in their reasonings on speculative subjects, and includes, at the same time, a great portion of the ancient dialectics, together with the application of the modern analysis to the solution of abstract questions. The third division contains what may be called the logic of facts; which is thus made to follow the explanation and establishment of the principles upon which men judge and reason about things. Here, too, are unfolded the rules of four very important arts—the art of observing—of making experiments—of generalizing—and of anticipation, or conjecturing. The fourth division is dedicated to

determining the import of those signs which distinguish truth from error—the different degrees of probability—the origin of error and prejudice—and the remedies or means of preventing them. The fifth division treats of method—the various kinds of it—its uses—the means of improving it—and its application to the different branches of science. The sixth and last division comprehends practical rules for improving the mind generally—for cultivating the senses, memory, attention, imagination, and, above all, the inventive faculty, upon the wise direction of which, the progress of science and of art so essentially depends.

To this comprehensive logic, Degerando further adds, a series of remarks on its application to the general knowledge of men—to prudence in the conduct of life—to conversation and discussion—to the art of reading with advantage—to grammar, criticism, and eloquence;—and to an art which embraces all others—the art of meditation.

This plan of a reformed logic, which is explained in this department of the lectures, is, without doubt, sufficiently comprehensive; embracing every thing, either in point of precept, or the order of study, which could possibly be required to conduct the intellectual powers of man, in the pursuit or application of scientific truth. It may, indeed, be considered as an *encyclopedia* of logic; affording to the student not only the proper degree of direction, in

his several researches connected with the principles of just reasoning, but the actual knowledge which it is the ultimate object of such reasoning to attain. It is a work, however, which is not to be expected from the labours of any one individual: the genius requisite for the execution of some parts, being hardly compatible with the minute details and common-place remarks indispensable in other parts. But, supposing it executed in the most complete manner imaginable, exhibiting a degree of knowledge, genius, and experience never before united in any single composition, I doubt much whether it would, after all, preclude the ground of complaint, mentioned above, of defects and imperfections in the art of reasoning. For, although the materials of such a plan of logic may never have been combined in any one treatise, yet all the principles and maxims, which it is meant to incorporate, are to be found in different works, well known to men of letters, and accessible to every student.

ARISTOTLE, for example, two thousand years ago, taught the manner of forming clear and distinct notions, by rules of definition, division, and classification: and these rules have been recommended by almost all succeeding philosophers, who have seen no reason either to alter them, or to add to their number. Descartes, too, in his work on method, has set forth many sound practical rules for general reasoning and investigation. Lord Bacon has taught men how, by a well regulated induction,

they may interpret the laws of nature; disclosing, at the same time, the sources of those numerous prejudices and predilections of the human mind which have the greatest influence in perverting its judgments. Locke has delineated, with a masterly hand, the faculties of the soul; pointed out the limits and extent of human knowledge; detected the prevailing abuses of language as applied to the functions of the reasoning powers; and recommended the proper helps and remedies to guide the understanding, or to correct its aberrations. Hutcheson, Hume, Reid, and Stewart, in more recent times, have presented many fine instances of successful investigation and of accurate reasoning; so that, as far as rule and example are considered, the zealous student has no reason to bewail the absence of means for constructing a system of rational logic. There are no difficulties which can occur, or obstacles that can come in his way, which he is not instructed by precept, or by the actual success of others, to explain or remove. Still, were these aids greater than they are, and were the specimens of philosophical investigation and sound argument which are presented in the works of modern authors, more perfect than I have described them; I apprehend that the desideratum, so often alluded to, of a rational, systematic logic, would continue to be as much deplored as ever, so long, at least, as the present method of teaching philosophy shall remain unchanged. After the memorable exertions of Aristotle, Bacon, and Locke, to improve the instruments of thought and reason, we must

ascribe the complaints of defect and failure, to a cause very different from want of scientific precept, or of luminous example.

The truth is, that the art of reasoning, like all other arts, is to be acquired by practice, and not by the mere knowledge of speculative rules. Ten thousand treatises might be written on the arts of spinning and weaving, and the rules contained in them might be fully understood, whilst yet neither yarn nor webs would be produced, to honour their ingenious author. In learning the art of reasoning, accordingly, the young artist must submit to be instructed and exercised, in a manner not less practical than an apprentice to a common trade. He must be subjected to authority and discipline: compelled to exert his talents in general; and particularly those which respect the perception of truth, and the relations of things; and, these elementary steps being once taken, and persevered in, it will be easy for him to direct the faculty of reason to whatever subject may be brought before his mind, without any immediate reliance upon abstract doctrines of logic, or theories of reasoning.

The perfect plan of a logical system sketched out by Degerando, learned and comprehensive as it may be, is not calculated for the purposes of a first philosophy class. It sets out, as was observed, with speculative and abstract knowledge of mind; with a review of the ancient dialectics; and an appli-

cation of the modern analysis to the more abstruse questions of metaphysical science: whereas, if we allow ourselves to be guided by the natural development of the rational faculties themselves, we shall find that the third division ought to be placed first; and only that species of knowledge communicated, at this early stage, which regards the culture of attention, observation, and the habit of arranging simple facts. The first step towards good reasoning consists in taking clear views of the subjects concerning which the determination of the mind is to be made; and to invest the perceptive powers with this invaluable habit, it is absolutely necessary, in the very commencement of philosophical education, to cultivate, by means of regular exercise, the faculties of attention and observation.

But, to whatever degree of perfection logic may be carried as an art, and whatever advantage men of science and reflection may derive from the study of it, the truth is, that the powers of reason, feeble and imperfect at first, must receive their chief improvement from a practical and well-directed education—and it is with this view that the instruction and discipline of a first class of philosophy in universities ought to be formed and systematically pursued. There is no other way of teaching young men true and rational logic, except by inducing them to think and reason; and, to render education effectual for these important ends, he who conducts it must have the means of exciting industry in all his pupils, of assisting

the willing, of encouraging the irresolute, of directing the ignorant, of compelling the refractory, and of rewarding the successful. When the exertions of the students are optional, they will, generally speaking, neither be constant nor uniform; and, indeed, we might as well look for effects without causes, in the material world, as for activity and diligence in youthful minds, without a concurrence of motives derived from the discipline of the school, the authority of the teacher, and the feelings of emulation which he may have succeeded in awakening. Professors of universities may be well employed, while exercising their genius and employing their leisure, in attempts to enlarge the boundaries of science, or to extend its usefulness; but teachers in universities must condescend to act an humbler part. They must submit to constant and painful labour; directing their zeal and talents to the means of cultivating endowments of which the pupil hardly knows he is possessed; of fixing attention upon subjects little calculated to arrest the juvenile imagination; and of drawing forth regular efforts, where there are so many temptations to remissness.

It is in vain, therefore, to complain of defects in the art of logic. The defect is in the art of teaching—a defect for which no artificial system of reasoning can, in the smallest degree, compensate—inasmuch as no degree of genius, or extent of resources, on the part of the teacher, can make up for his unskillfulness or for his negligence, in not producing regular,

animated, and increasing exertions, on the part of the student.

It must, however, be admitted that, in all the departments of science, and of business, many persons have attained to great perfection in the exercise of the reasoning powers, without having gone through the discipline of a logic class. But such persons must have gone through a similar or analogous course, either under their own, or some other, private direction. Some may be favoured with stronger powers of intellect than others; or may have been placed in more favourable circumstances; but no man ever acquired the habit of reasoning well, on any subject, except by exercising the reasoning faculties frequently and regularly.

ON THE IMPROVEMENT OF THE POWERS OF GENIUS.

IN the analysis of the intellectual powers, given in the first division of the lectures, genius was described as consisting of a happy combination of these powers; excited strongly by a particular object, and bent on the attainment of some particular end. It is an endowment, indeed, not to be traced to any one faculty, nor to be defined by a reference to any single operation; it is most easily characterized by its splendid effects, in science and in art. Agreeably to this view, it is farther stated, in the analysis already mentioned, that invention in the arts, and discovery in the sciences, are usually held as the best criteria of genius; and an attempt is made to trace a connection between such achievements of ingenious men, and certain combinations of the intellectual faculties, imagination, judgment, and taste, which are commonly supposed to constitute the basis of the power in question. The analysis of genius is concluded with some remarks on the early indications of its workings; with the view of attracting the attention, and rousing the diligence, of youth, to the means of calling forth its dormant energies.

It is not pretended that there is any art, the direct object of which is to teach men to invent. Nothing more is meant than that, in performing certain mental acts, and in acquiring previous habits, upon which

the last step of discovery or invention may materially depend, rules may be of very essential importance. In truth, as genius is universally regarded as springing from a peculiar combination of the intellectual faculties, so, the more perfectly these faculties are cultivated by the due application of the means appropriated to each, the more likely are we to succeed in developing the latent powers of genius, properly so called, and in strengthening their operation. If, on the contrary, the first steps are neglected, and the first rules despised, the native talents of the youthful genius may either remain languid and unimproved, or they may shoot forth into all the wildness and extravagance which usually characterize strong powers, and bad taste, in young men.

But although there are no rules by which man can be instructed to invent and discover, I must not fail to notice that Aristotle, whose genius was not easily impeded in its efforts, has actually left us an *art of invention*. The structure of the syllogism requiring the use of middle terms, as *media* of comparison, he found it necessary to make provision for the discovery of these terms; and, with this view, accordingly, he added to this explanation of that celebrated instrument, his doctrine *de locis*, or a treatise on the places, where such intermediate notions were to be discovered. And, although succeeding philosophers do not seem to have made much use of these logical topics, Cicero and other rhetoricians profess to have derived considerable advantage from them. They,

accordingly, admitted this work into their systems of rhetoric: and Cicero, in the same spirit, recommends to the young and ambitious rhetorician to study subjects in the abstract; that he might be prepared on every topic which should come into discussion, or, at all events, require only a little time to fill up names, dates, and circumstances.

Without however entering any farther into the ancient doctrine of invention, I proceed to inquire, a little more particularly, whether the student has it in his power to improve that special endowment denominated GENIUS.

It is very evident, whether we ascribe it to original constitution, to the influence of surrounding objects, or to early habits and associations, that the powers of genius frequently manifest themselves in individuals, before any voluntary or artificial means of improvement could have been applied. But, notwithstanding this fact, and the farther concession that little is to be expected from any direct means of improvement, it is not to be concluded that genius can derive no advantage from constant and well regulated study. In perusing the history of invention, it will be found that almost every thing great has been effected by the studious and industrious; and, even, that those inventions which have been made, apparently, by accident, have very seldom fallen to the lot of the idle or the careless. Regular action and diligent habits naturally prepare the mind for the

exertion of its higher powers; and many things must, of course, occur to the student, whose attention is habitually occupied, which never present themselves to him who applies only by fits and starts. If diligence be the path which leads to invention, the slothful will never be found in it. Let the young philosopher, therefore, who wishes to improve his talents, and who sighs for distinction as an ornament, or benefactor to the human race, begin his career with perfecting, to the utmost of his power, the habits of attention and industry; and, should he not, at once, obtain for himself the first rank in the scale of public estimation, let him be assured that these good habits will advance him every day nearer and nearer to the object of his ambition: for, when active persevering diligence starts in competition with mere talent, unaided by study, the former seldom fails to be rewarded with victory.

Further, it has been observed that in general all those who have achieved important discoveries, or improvements, are persons who, either from necessity or choice, have had their attention vigorously directed to the particular science, or art, which they have, in the end, enriched by their genius. It will be found that it was a deep conviction of actual defect, or imperfection, and clear views of a higher and more perfect state, to which their favourite pursuits might be carried, which encouraged their perseverance and directed their research. The man who first threw aside the mattock and made use of the plough;

he who first applied water to turn a wheel for grinding corn, instead of doing it with the hand; had, it is very probable, long smarted under the drudgery of manual labour, and frequently revolved in his mind various expedients for alleviating the fatigue, and for shortening the toil, of these respective processes. It was, in like manner, a decided conviction, that the steam engine was faulty, in relation to the consumption of fuel, which led WATT, the great improver of that wonderful instrument, to devise an appropriate remedy. The last act, in short, or that which constitutes the invention, cannot be performed by those who are ignorant of the previous steps; and, although the former may require a more vigorous effort of the mind, or greater display of genius, yet the latter are absolutely indispensable as a basis for that effort.

The plain inference, therefore, is, that the diligent and persevering student has no reason to despair of reaching even the highest degrees of eminence, and of contributing to those discoveries, inventions, or improvements, which confer reputation upon their authors, and benefit upon the age in which they live. His first endeavours, accordingly, for this purpose, should be directed to the formation of clear and distinct notions, of the elementary doctrines of the particular science, or pursuit, which may happen to employ his industry; for it is only by these means that he can expect successfully to make his way through the more obscure and complicated parts of study, and to discover where the art has reached

perfection, and where it may still admit of improvement. He requires not to be informed that darkness cannot lead to light, nor confusion to order; while a feeble light may conduct to a stronger, as the dawn ushers in the effulgence of noon. In all cases, indeed, clearness and certainty, in the elementary steps, give vigour to the imagination, and facility to the memory; and, at the same time, enable all the other powers of the mind to discharge their respective offices with readiness and effect.

It has been still farther observed that those persons who have successfully exerted their inventive powers, in any department whatsoever, have, in general, been distinguished by great ardour in pursuit of their objects. The great end of their endeavours has been constantly present to their minds—has been their companion by night and by day—constituting the chief spring of activity, and the main source of their pleasure. And, it is after the labour, perhaps, of many a day and many a night, during which the object of their studies has given occasion to frequent trains of thought, voluntary as well as involuntary, that they, at length, succeed in gaining the important step, in discovering the connecting link which unites and supports the whole chain of reasoning.

The pleasure derived from such active and awakened states of mind has been described as of no ordinary nature. Pythagoras, on the discovery of the

forty-seventh proposition of Euclid, is said, after having expressed his delight in the most extravagant manner, to have sacrificed a whole hecatomb. That ardent and elevated state of mind, which is denominated enthusiasm, seems indeed an inseparable attendant upon genius. It is, at once, the reward and the stimulus of exertion. It warms the imagination, and prompts it to greater deeds; and thus poets, who generally possess characters of the deepest susceptibility, have, in these states of mind, not only believed themselves to be inspired, but have prevailed on others also to believe it. It is then that they implore supernatural aid to assist them in their arduous undertakings. “MHNIN AEIΔE ΘEA.”—“Musa mihi causas memora.” “Of man’s first disobedience, —sing heavenly muse.”

“————— From heaven descends
The flame of genius to the human breast.
————— Nature’s kindling breath
Must fire the chosen genius; nature’s hand
Must point the path, and imp his eagle’s wings.”

AKENSIDE.

Under the cover of these poetical images and allusions, it may be again brought forward, as an objection to all that has been said on the culture of genius, that it is impossible to give directions, or to construct rules, for producing animated feelings, and lofty conceptions. This has been already admitted. Neither Aristotle nor any other author has yet discovered an art by which men could be taught to strike out in-

ventions, or to excel in poetry and painting. Nor can the most sedulous teacher, in modern times, form, in the minds of his pupils, that combination of intellect with the powers of feeling and of taste, upon which genius so essentially depends. He cannot even lay down a system of rules, by which such associations shall be formed as will certainly rouse the energies of genius, in minds already endowed with them. But he can direct the attention of youth to objects fitted to produce those particular emotions which are usually found to kindle the enthusiasm of superior talent;—he can speak with earnestness of the respect and admiration which achievements in science, or in art, never fail to command;—he can describe the steps, and mark out the path, which lead, from industry in study, to future scenes of distinction and honour;—he can induce them to engage in competition, to commence the career of eminence; and to fix their ambition on objects worthy of their endeavours;—and he can likewise present to their eyes bright examples fitted to stimulate their exertions, and to keep alive their ardour.

In this important work, however, the student must also perform his part. He must strain every nerve; neglect no opportunity of instruction; and profit by every hint or advice. Above all, he must allow himself to be convinced that the object upon which his heart is set, can only be attained by regular and constant efforts of his own; and that no hand can possibly interpose to do his work for him, without entail-

ing on him certain disappointment and deep reproach. Here, also, it is that “They who seek shall find;” for all that is good and great in this world, as well as in the next, depends upon the sincere and hearty use of the means put into our hands for acquiring knowledge, and for improving the several talents entrusted to our care.

ON ELEMENTS OF TASTE.

ANOTHER of the sources of materials for lectures and exercises in this class, are the elements of taste and of composition; and, agreeably to the plan adopted in the former divisions, I first give an analysis or explanation of the faculties of mind conversant in these departments of study; and then, point out the means by which they may be improved. The object here, as in the former case, is to communicate such elementary knowledge as may lay a foundation for future acquirements; and, at the same time, afford suitable matter for a progressive course of exercises to be performed by the students, in compliance with the system uniformly followed out during the whole course. It is, perhaps, hardly necessary to mention, that inquiries connected with the elements of taste are peculiarly adapted to the introduction of various subsidiary topics, extremely well fitted to interest the minds of the young, to encourage application, and to furnish materials for discussion, or reflection, in the composition of their essays.

In conducting the analysis now proposed of the mental powers connected with taste, little assistance can be derived from the ancient critics. These writers have, indeed, transmitted to us many fine specimens of taste, but they have not left any traces

of a philosophical inquiry into the nature of those principles, or faculties, in the human mind, which lead us to derive enjoyment from those particular qualities in objects to which taste bears a reference. There are, no doubt, some distant allusions to these faculties in the dialogues of Socrates recorded by Plato, and also in the works of Cicero and Quintilian; but no regular, systematic, explanation of them is to be found in ancient philosophy.

During the scholastic ages, no analysis of this nature was to be expected. The dialectics and metaphysics of Aristotle, with which men were then occupied, were decidedly opposed to any exercise of the powers of taste. The French philosophers, in later times, set the first example of scientific inquiry in the department of taste and criticism; and they had made considerable progress in both, before any attempts were hazarded among the learned in Great Britain. The essays of Mr. Addison, in the sixth volume of the *Spectator*, may be said to exhibit the first philosophical exposition, which appeared in England, of those powers of mind whose office it is to appreciate objects of taste. Since his time, however, the writers in this field of literature have been both numerous and distinguished; among whom every one will recognize Hutcheson on the "Internal or Reflex Senses;" Hume on the "Standard of Taste;" Burke on the "Sublime and Beautiful;" not to mention Gerard, Kaimes, Blair, Alison, Knight, and Stewart.

But, notwithstanding the great mass of talent, and of learning, which has been thus brought to bear upon the inquiry now before us; the different and incompatible notions entertained on the subject at large; the opposite opinions respecting the nature and offices of the mental powers; and the various and even contradictory definitions, given by some of these writers, of the faculty of taste itself, considered as the source of judgment and of sentiment, prove too clearly that this part of the philosophy of mind has not yet attained to perfection. The celebrated Montesquieu, for instance, defines taste to be a "power or faculty of discovering, with promptitude and nicety, the degree of pleasure which every thing ought to give to man." Now, a talent of discovering is wholly intellectual; and, besides, there are many things which ought to give pleasure to man, which cannot be called objects of taste. D'Alembert, again, defines taste to be the "talent of discovering, in the works of art, that which ought to please sensible and feeling minds." This definition, it is obvious, applies more properly to the art of criticism than to taste.

Nor are the definitions of the English writers formed with much more accuracy. Addison calls taste, "the pleasures of the imagination." Burke denominates it, "the faculty or faculties by which we are affected with, and form a judgment of, the works of imagination and the elegant arts." Dr. Blair calls taste the "power of receiving pleasure from the

beauties of nature and of art." But it is quite unnecessary to produce more examples of the vague and bewildering definitions which have been given of this faculty, and of the objects with which it is conversant. It is not here meant to detract from the merits of the eminent writers whose names have been now mentioned.—Their works were written for the public at large; for those, particularly, who are supposed to have already made some progress in such pursuits; not for students who are yet to receive their first scientific notions in regard to them. They were written with the view of extending the bounds of a science already established, not of communicating elementary instructions to young persons. It is hoped, therefore, the author will not be thought presumptuous, whilst he claims only the humble office of accommodating the knowledge furnished by these authors to the actual circumstances of his pupils—anxious to proceed no further in the science than they can successfully follow him. Before he enters into abstract or theoretical views, it is necessary that he should lay a solid foundation, in a correct knowledge of first truths, and of undisputed facts.

Entering more closely upon the subject, then, it may be observed that the powers of taste are a combination of certain modes of intelligence, and of sensation; and have, therefore, not unaptly, been explained under the notion of senses. Dr. Hutcheson denominates them internal, reflex, subsequent, senses;

implying, by these expressions, a previous operation of the external sense, as well as an investigation, or review, by the reasoning faculties, of the source and character of the impression thereby received. Distinguishing these powers by a reference to the qualities, in external objects, upon which they are respectively exercised, he calls one the reflex sense of novelty, another the reflex sense of grandeur, &c.

The analogies between these reflex senses, and the senses properly so called, are neither few nor remote. Both have their particular objects, or qualities of objects, which may be said to impress them; and the effects produced on the mind are, in both cases, so instantaneous as clearly to anticipate the exercise of reason. In like manner, too, as judgments respecting the existence and externality of material objects are inseparably connected with the impressions made by them upon the outward senses, so do corresponding judgments, as to the reality of the grand, the beautiful, and the sublime, follow immediately upon the impressions which these qualities make, on the finer organization of the internal senses.

It is chiefly, however, with regard to two of the external senses, of which the eye and the ear are organs, that the analogy now spoken of is found to hold. The pleasures derived through the medium of the other organs of sensation are never considered as pleasures of taste; nor are the objects from which they are received, ever regarded as beautiful or sub-

lime. We do not apply these epithets to the odour of a rose, nor to the relish of an apple, nor to any impression received from the sense of touch. The eye and the ear are more perfect senses. They have a wider range of operation, possess nicer and more acute discriminations, and are the instruments of much more refined enjoyment. In particular, they constitute the medium of all those impressions which awaken the power of imagination; and supply materials for all those combinations of fancy which give so much delight in the works of the poet and the painter. When cultivated by practice, and exercised under the direction of a sound judgment, these external organs seem almost to discharge, at one and the same time, the functions of sensation, and the office of the reflex senses. The determination of the mind, in these cases, is so instantaneous that it is nearly impossible to distinguish it from the impression on a bodily sense.

It is somewhat singular, that the term taste should be taken from an external sense, of which neither the objects nor the sensations have any connection with the reflex senses. The same analogy of expression holds in the French, and traces of it are to be found even in the Latin language: and it is, perhaps, in all these cases, to be explained on the same principle, namely, that, as the external sense in question possesses an exquisite nicety in discriminating relishes—enjoying some with voluptuous gratification, and rejecting others with strong symptoms of disgust—

so the internal senses manifest the same discrimination in appreciating their objects, and a similar degree of delight in their enjoyment. The analogy may farther be traced to this striking circumstance, with respect to each, that, as the simple relishes of food please the palate most in its natural state, so the simple qualities of things, in the department of taste, particularly in regard to music, poetry, and architecture, give most pleasure to the uninstructed mind :— and, as, in every instance in which the gratification arising from food is made an object of study, compound relishes, and mixed dishes, are eagerly sought after ; so, in the objects of taste, complication and variety are usually found to afford most satisfaction to the man of experience and research.

In the phraseology of some recent authors, there seems to be a disposition to contract the meaning of the term taste, as applied to the susceptibility of refined pleasure, derived from certain properties of things ; and to substitute for it the word *tact*, borrowed from the sense of touch. Mr. Stewart, for instance, first explains beauty, and grandeur, and then taste, or tact ; whereas, most other writers have regarded the former as merely branches of the latter. I do not see that any thing has been gained by this change of names. We can no more literally *touch*, in such cases, than we can *taste* ; and, as the use of the new word does not introduce, into this department of knowledge, either greater clearness, or greater

accuracy, we may be allowed to call in question the expediency of the innovation.

When engaged in this species of verbal criticism, an inquiry into the proper use of terms constitutes a very useful sort of logical exercise to young minds: I am in the habit, therefore, of making a few remarks on the phrase, "Pleasures of taste." The word *pleasure* evidently expresses an abstract notion, derived from agreeable sensations of every description which the mind is capable of receiving. But, although it will be readily admitted that agreeable sensations form a class *sui generis*, yet obvious and great differences are to be found among them. They may, indeed, be distinguished in their cause, as well as in their effect. Truth and falsehood, for example, are both sources of intellectual emotion. Good and evil, right and wrong, are objects of moral sentiment, as beauty and deformity are objects of taste; and the satisfaction or disgust which attend the contemplation of these qualities, although radically different, are very apt to be confounded. In particular, the agreeable emotions received from beautiful objects, are, in most cases, very difficult to be distinguished from the incipient workings of passion. The former, however, are always unaccompanied with violent desire; and differ from the latter not only in this circumstance, but more especially in the characteristic fact that their objects are always contemplated on their own account, and never with the view of accomplishing any farther end. The former, too, are, in their na-

ture, gentle and calm, and seldom marked by any outward appearance; the passions, on the contrary, are often violent and tumultuous, manifesting themselves, on such occasions, in agitation of the whole frame, in trains of thinking, and even in modes of expression.

The agreeable sensations which form the pleasures of taste are particularly distinguished, too, by their immediate influence on the faculty of imagination; carrying it into various trains of association, and suggesting exalted conceptions, connected, more or less immediately, with the original impression; whereas, the emotions of passion chain down that powerful faculty to the particular object which excites them, and render it the slave of a fixed and determinate appetite. These marks will enable the student to distinguish the agreeable sentiments of taste, from the pleasing workings of a grosser principle, with which they may happen to have some features in common.

In the prosecution of this analysis, I have, from motives of convenience, adopted the phraseology of Dr. Hutcheson, relative to the powers of taste, and considered them as internal or reflex senses. The following reasons, among others, have induced me to give a preference to this method. In the first place, after the full explanation, already given, of the external senses, the transition to the internal is both natural and easy. The objects of both are external;

the qualities only being different. Sensations, also, are received from both, differing only in kind. The intellectual powers of discrimination are the same, whether viewed as operating on the more common properties of matter, or on such as constitute objects of taste. The reflex senses, too, as well as the external, are limited to a certain number; the method of analysis is very similar, and the terms employed in that process have very much in common. Such resemblances, in distinction and division, afford considerable assistance to the memory and understanding of the young: while there is no danger of confounding, in such analytical inquiries, the impressions derived from material objects, with the reflex operations of the mind arising out of these impressions. Nor is there any risk that this mode of procedure will preclude any judicious attempt to simplify the explanation of mental phenomena. The period of communicating elementary knowledge is not, however, the proper season for pushing refinement to its utmost limits; for it is not so much the origin, or generation of mental states, which the teacher must keep in view, as the operations to which they lead—their objects—their effects—and the general circumstances connected with them.

The analysis of each of the reflex senses is conducted according to the following method:—

1. The attention of the student is first directed to the particular qualities in nature, and in art, which

correspond to the several senses of novelty, grandeur, sublimity, beauty, ridicule, and imitation.

2. Next, to the character of those agreeable sensations, which attend the exercise of the reflex senses, when pointed to their respective subjects, and which lay the foundation of the pleasures of taste.

3. Then, to the consideration of the final cause of taste, or to the purposes served by such sentiments, in the human constitution.

It is scarcely necessary to remark, that the minute detail absolutely indispensable in communicating to young persons elementary instruction in the form of lectures, would be altogether out of place in these outlines; and, at the same time, not a little tedious to those who have made progress in this interesting study. All that is proper here is to give a short specimen of the manner in which the analysis is conducted; and, for this purpose, I take the reflex sense of beauty.

First, then, on the objects of the reflex sense of beauty.

This sense, it may be truly asserted, is an original part of the human constitution. In whatever condition man is placed, the influence of this principle displays itself in the untaught preference which it leads him to make of such things as he deems beau-

tiful. It does not, however, discover itself so early as some of the other internal senses. Infants show scarcely any indications of it. The nurse, however ugly, is preferred to all other human beings, even to those of the most perfect beauty. It is a sense, too, which seems strictly peculiar to man. Some faint traces of the sense of novelty may, perhaps, be discovered among the inferior animals; but none of them, Esop's animals excepted, discover any sensibility to beauty. His jack-daw dresses itself in the feathers of a peacock.

It is expedient here to inform the student, that the term beauty is very equivocal in its meaning; being sometimes applied to the power or capacity in the mind, and, at other times, to the corresponding quality in an external object. Were we, however, to judge of the import of this term, from the frequency and facility with which it is used, we should consider the subject of beauty as one of the simplest of all inquiries. No person thinks that he can possibly be ignorant of the meaning of such a common expression, or that, in the notions suggested by it, he incurs any risk of falling into error. But when such questions as the following are put to him; "What is that quality which, in so many different objects, and under so many different forms, has the power of charming every class of human beings? Is it in the object, or is it in the mind which perceives the object? Is it something absolute or relative?—something which would please all men in all conditions of

society, whether rude or civilized, learned or unlearned?" To these and such like questions nothing but doubtful answers are obtained: such answers, indeed, as might justly lead to the belief, that the same impressions are not received by every individual from the same objects, although perceived in the same external circumstances. Nay, on many occasions, we hear some persons applying the term beauty to objects, in which others, equally well informed, can see nothing beautiful whatever: and, in instances still more numerous, even when men are agreed as to their general notions on this subject, as well as to the existence of the quality in particular cases, we find them, yet, differing with regard to the degree in which it subsists, and maintaining their respective opinions on grounds so incompatible with the supposition of a fixed standard, or principle, that we are compelled to conclude, that the sentiment of beauty is not, as hasty thinkers would have it, a simple and ultimate impression. In short, it requires little attention to be satisfied that the ideas of men on this head are extremely vague and indefinite; that the same object appears charming to one, indifferent to another, and positively disagreeable to a third: moreover, that the object may be admired or neglected, praised or despised, by the same individual, at different times, and in different humours.

In explaining the causes of this ambiguity, it cannot fail to be remarked, that the variety and number of the objects to which the epithet beautiful is ap-

plied, have a direct tendency to perplex our notions in regard to that quality. It is applied to the human countenance; to the plumage of a bird; to the colours of a fish, or of an insect; to flowers and plants; to a hill, a palace, a head-dress; to a pair of buckles, a necklace, a handkerchief; to a poem, an essay, a problem, a syllogism; to a system, or theory; to certain virtues; to character, and general conduct. These objects are so strikingly dissimilar that it is scarcely possible there should be any quality common to them all. The question, however, which now demands solution, respects not the various objects which may happen to be called beautiful, but rather that particular quality in them, considered as a class, which constitutes beauty.

This inquiry, however, is beset with additional difficulties, arising from the nature of sensation—from the imperfection of the discerning power—and, in particular, from the poverty of language. As the first notions of beauty are derived from external objects, by means of sensation, they must necessarily differ in individuals, according to the delicacy of the organ, and the various degrees of susceptibility which belong to different constitutions; and, as the powers of discernment do not extend to minute differences, in the degree or quality of a sensation, we have no precise *data* for comparison, as applicable to the impressions made on the minds of one another, and cannot, therefore, determine with accuracy a scale of sensible beauty. With regard to other kinds

of beauty, where the elements which enter into the conception can be determined and appreciated, our notions very generally coincide. In architecture, for instance, of which the beauty depends upon *data* which can be measured, and is regulated by principles which can be expounded, the opinions of men qualified to judge, are found to be every where nearly the same. Again, as to the excellence of a first rate picture, or statue, there is a very general agreement in opinion; but, wherever the notion of beauty depends upon sensation, there must be, from the various and undefined nature of such impressions, no small scope for difference of sentiment.

The imperfections of language, too, add very considerably to the difficulties which prevail on this subject. The want of terms to mark every shade or degree of sensation, necessarily compels men to apply the same sign to very different impressions, and even to states of feeling which have scarcely any thing in common. A child, for example, hears the term *good* applied to milk, to sugar, and to honey; and these objects, although very unlike one another, being to him the cause of agreeable sensations, are, naturally enough, classed by him from a relation to that common property. In like manner, there is a vast variety of things called beautiful, and regarded as such by all mankind; but, owing to the imperfection of human speech, and to the multitude of ideas which enter into the conception of beauty, the same term is necessarily applied to objects which have nothing

more in common than the milk, honey, and sugar of a child. The emotion produced is, generally speaking, of the same kind in all cases; and neither language, nor the power of discrimination in the mind, will enable us to push the distinction to radical differences.

This point, however, will be more seasonably discussed towards the close of the analysis. It may, in the meantime, be remarked, that our notions on this subject are still farther perplexed by the circumstance that beauty is not the only quality in pleasing objects which produces agreeable sensations. Did beauty, indeed, exist in objects exclusive of all other qualities, it would be more easy to catch that fleeting shadow; but things which are beautiful, are often, also, good and useful, and, consequently, produce in the mind, other notions besides that of beauty. Different sensations, proceeding from the same object, are easily confounded, both in thought and in language; and we find, accordingly, that they are generally blended in one conception, long before the mind is qualified either to separate or distinguish them. It is in proportion, therefore, as the powers of discrimination are improved, that our perceptions of beauty become refined; and, particularly, that we discover whether we are delighted with an object merely for its qualities, as they affect the principles of taste, or from a reference to some ulterior purpose.

The perception of beautiful objects, is always ac-

accompanied with the belief that these objects do, in reality, possess properties which make them desirable; in other words, we ascribe the sensations which we experience, to the external object, and not to our own mind. Mr. Addison has, indeed, said, that there is neither beauty nor deformity in one piece of matter more than in another, and that we might have been so formed as not to perceive any such distinction. But the plain answer to this is, that we are not so formed, and that we do perceive such distinctions in different pieces of matter; being satisfied, at the same time, that the perception is founded in the essential difference of the external qualities, and not in any peculiar condition of susceptibility on our part, as connected with the exercise of the will. If Mr. Addison means by beauty a feeling or sensation in the mind, there is very little ingenuity displayed in the remark, that there is no beauty—that is, no sensation, in the material object.

After these preliminary observations, naturally suggested by the subject, and probably of some use to young men just entering upon this field of inquiry, I proceed, agreeably to the plan already sketched out, to consider the several qualities in sensible objects, whether in the department of nature, or in that of art, to which the epithet beautiful is commonly applied. It is not, indeed, to be expected that complete success will be attained amidst such a variety of opposite and contradictory opinions; but, if I can contrive to supply my pupils with materials for think-

ing and composition, and, at the same time, point out to them a method by which they may, hereafter, instruct themselves, I am satisfied that my exertions will not be altogether useless.—It may be proper to mention that, as beauty, regarded as an object of taste, extends to a great variety of subjects, so the term is here employed in its widest acceptation; being applied to colour, to form, to sound, to proportion, and to numerous other properties, usually introduced into this department of study.

ON THE BEAUTIFUL AS APPLIED TO COLOUR.

As an object is visible only by means of the colour reflected from it, the epithet beautiful seems to have been originally applied to coloured substances, or rather, perhaps, to the colours themselves. At this early stage, accordingly, the difficulty of the analysis begins. Is colour beautiful on its own account? And, if so, what is the kind or degree of colour to which that term is properly applied? To ascertain this point, as far as it is capable of being ascertained by young students, the Baconian prism, so to call it, must be employed; that is, a close and minute attention must be given to the subject, guided by a constant reference to observation, and reflection on the part of the inquirer.

Suppose, then, a visible object to be presented which has no claim to the epithet beautiful except its colour; it will be found that the pleasure, received from looking upon it, will be greater, or less, according to the degree of excitement which the rays of light, reflected from its surface, produce upon the organ of vision. To this extent, therefore, an object may be pronounced beautiful on its own account. The organic affection is agreeable; and thus, according to a natural principle of association in the mind, the external cause of that affection will be regarded as agreeable. The first fact, then, which may be

established on this head is, that no colours which are either too faint or too brilliant are ever held beautiful. The beauty of colour, on the contrary, seems to have its place somewhere between these extremes. It must be clear, without being glaring; it must be bright, and yet not dazzle. It must excite sufficient activity in the organ, without inflicting pain, or threatening injury.—Here an appeal is made to the observation and experience of the students themselves, and they are requested to examine into such facts as may fall under their notice, and to compare, with the views now given, their own unassisted conclusions.

The subject is then followed out a little farther, by observing that the beauty of the human countenance is found to correspond with the principle just stated; its colours being neither a glaring red, nor a dead white, but an imperceptible mixture of both. The fine colours of the vegetable and mineral kingdoms are all of the same description. Neither the very bright nor the very pale rose, is esteemed beautiful; this epithet being reserved for the pink, the violet, and for that particular species of rose which combines and softens the more lively tints. But every one must make experiments for himself; note exceptions; mark differences; collect and arrange well authenticated facts.

In pursuing these observations, I find it necessary to separate as distinctly as possible the direct beauty of colour, from the analogous effects produced upon

the mind by association and expression. Objects distinguished by the fineness of their tints may at the same time excite other sensations of a pleasant nature, which tend greatly to enhance the beauty of colour. Thus the rose and the lily which are directly beautiful, have that quality not a little improved by the agreeable sensation of their odour; while, on the other hand, the beauty of the rose-peony, and of other flowers which have either no odour or a disagreeable one, has its power very much diminished. It may, in fact, be admitted as a general principle that objects which, on any account whatever, are the cause of frequent pleasurable emotions, become to the eye more beautiful than they really are. It is for the reason now assigned that the persons of our friends, children, and benefactors, appear to us invested with charms which do not in reality belong to them. The lover beholds in his mistress beauties which no one else can discover; and the mother sees in her infant a variety of attractions which escape the notice of every other person.

We can neither enumerate nor arrange the various examples of such associations. A particular colour, for instance, is beautiful in one place and not in another. Blue is delightful in the sky, and green in the fields: but let them exchange places, and they will both appear disagreeable to the sight. Either of these colours, too, would be excessively disgusting in the human countenance: and it would be diffi-

cult to persuade a native of Ethiopia or Negroland, that white is more beautiful than black.

Colours, again, are often esteemed beautiful from mere accidental association. Purple, for example, from being connected in the imagination with the dress of kings, has acquired the character of dignified beauty. It is, however, worthy of remark that the sentiments of mankind with respect to these associations are far from being uniform. The favourite colour of one country may happen to be little regarded in the very next. The intervention of a river or a mountain, is very often found to reverse the train of ideas on which the popularity of a tint is made to rest. Spain and Venice admire black; whilst in China yellow is held to surpass all other colours in dignity, elegance, and beauty.

The principle of association has the greatest influence in determining the beauty of colour in regard to dress. The shade of a fashionable cloth soon recommends itself to every eye. If it be worn by the great and the wealthy, it matters not whether the colour be that of clay or a withered leaf, the voice of the gay world stamps it as beautiful and becoming. Furniture and the ornaments of houses, have likewise their appropriate colours, of which the beauty is almost entirely dependent upon the caprice of taste and the whims of fashion.

But the beauty of colour is not only closely con-

nected with association ; it also depends much upon the expression of pleasing and interesting qualities. Thus, the terms soft, mild, and gay are applied at once to particular colours, and to affections of the mind ; and the beauty of the human countenance, it is universally admitted, receives its highest lustre from the indication which it affords of the agreeable dispositions which brighten its features. The expression of a stern, inflexible, or vindictive character, whatever may be the complexion or form of the face, is never pleasing, and consequently is never esteemed beautiful.

But, powerful as the principle of association is acknowledged to be, we are not to imagine that there is not in colour any inherent or independent beauty. Nothing more is meant by the illustration now given, than that, to the pleasure derived from beautiful colours, the principle of association adds agreeable emotions of another kind ; and that, from want of proper discrimination, the effects arising from the latter cause are often ascribed to the former.

It is true, indeed, some late philosophers have maintained that there is no such thing as direct beauty of colour ; and that all the pleasures of taste, which are usually referred immediately to that quality in objects, arise indirectly from association with moral or intellectual beauty. The sensations received from coloured surfaces are thus regarded as mere organic impressions, which can give neither pleasure

nor pain, but in as much as they fail, or exceed, in affording due action to the nerves, and other parts of the corporeal instruments of sense.

It is admitted, that there are high degrees of moral and intellectual excellence which cannot be contemplated without the most lively sentiments of admiration and love; and, when the term is properly restricted, there can be no objection to the principle on which these mental qualities are described, as beauties of the most elevated and perfect order. But this affords no reason for denying the existence of sensible beauty. On the contrary, it is only from a reference to the qualities which constitute this latter species of beauty, considered as a standard, that the epithet beautiful, in any plain or proper sense, can be applied to moral or intellectual eminence.

It is altogether unphilosophical to say that the sensible quality of colour, and the agreeable emotions which arise from it, are not entitled to the appellation of beauty, merely because they depend upon impressions of sense, and because the senses are an inferior part of our constitution. This circumstance, of itself, ought not, assuredly, to lower the estimate of sensible beauty; unless those who hold such an opinion be, at the same time, prepared to deny that the human mind does ever enjoy any pleasures but such as spring immediately from reflection and abstract thought. Properly speaking, there is no mere bodily pleasure, though the body be the instrument

by means of which all pleasures, even the most intellectual, are, directly or indirectly, produced. In this, the superiority of our nature to that of the lower animals is strikingly apparent; for, while they have senses, in many instances, much more powerful and acute than those of man, they seem not to have the slightest perception of beauty, either of colour or of form. The quality of sensible beauty, therefore, which so powerfully penetrates the heart of man, is not to be reckoned among the grosser pleasures of sense.

It is, unquestionably, somewhat inconsistent, also, in another point of view, to refuse to colour, directly, and without association, the epithet of beautiful, as such a denial implies that the original source of beauty, the quality, in short, from which the term is borrowed, has ceased to be beautiful. Without light and colour, it is difficult to form even a conception of beauty. The imagination, in such circumstances, can lay hold of no images but those of creation veiled in black darkness, of animal life dying fast away, and of general insecurity and horror; and we are naturally carried towards the spirit and frame of mind in which Mr. Addison declared that, even in the prospect of enjoying celestial happiness, he could not altogether forego the delightful impressions attending the sensation of colour. "The ideas of colour," says he, "are so pleasing, and so beautiful, that it is possible the soul will not be deprived of them, when it enters upon another state of existence,

but will perhaps find them excited by some other occasional cause, as they are at present by the different impressions of that subtle matter on the organ of sight."

The philosophy which attempts to resolve sensible beauty entirely into association is not likely to throw much light on this intricate subject: on the contrary, it seems rather calculated to render the analysis more difficult, and uncertain. When sensible beauty is considered as nothing more than the occasion of introducing to the mind the higher beauties of association, it seems impossible to fix any point from which we can set out in determining the nature of that mysterious quality. There is no standard left by which we can judge, or to which we can refer our notions. The foundations of the doctrine on this subject, viewed as a scientific inquiry, are completely removed; and beauty, in nature and art, is made to depend upon accidental association in some minds, and upon lively fancy in others.

To bring the matter to a practical criterion, suppose this question were put; "Whether does the pleasure we receive from a beautiful landscape, depend more on direct impression, or on association?" What should be the answer? Are not the direct, sensible beauties of colour, and form, the chief sources of the delight which we enjoy from the contemplation of a fine country, in the pride of summer? The mind, in such circumstances, is guided by the

eye, and is charmed with the gorgeous display of luxuriant vegetation, the green wood, the swelling hill, the towering crag, the winding river, the spreading lake, and the sunny plain, bounded by the hazy outline of the lofty mountain, mixing with the clouds. All this is mere external loveliness, mere sensible beauty, admitted by the organ of vision; and these, certainly, are sufficient materials for the gratification of an unsophisticated taste, without the artificial adjuncts which some recent theorists throw in, to supply, as it were, the deficiencies of nature.

On the other hand, let a view be taken of the same object through the medium of association. We must begin by regarding the sensation of colour and form, as altogether unimportant, as being nothing more, in fact, than the mere occasion, or impulse, necessary to precede the workings of the associating faculty. What, then, are the associated objects which form the principal beauties of this supposed landscape? They are, it may be conjectured, the images and anticipations which are usually connected with fertility, production, plenty, and, above all, with the peaceful happiness of the human beings who direct the operations of nature, and enjoy her bounty. But, by what magical charm is it brought to pass that the splendid beauties of colour and form, in all the pride and majesty of their summer glory, should be heightened by the associated ideas of the various mechanical operations necessary for the cultivation of the soil?

Besides, there are many beautiful phenomena of colour, as to which it would be extremely difficult to trace to any associated ideas, the delight with which they are contemplated. For example, where shall we find associations, which make any addition to the pleasure we receive from viewing those beautiful streaks of variegated colours in the sky, sometimes seen, even in this northern climate, in a fine summer day?—those light airy clouds of most delicate mixture, which allow the eye to pass, as it were, beyond its usual sphere of vision? If these beauties depend not upon varied colour and form, from what associated ideas, or objects, is the pleasure derived? It is surely a very unsatisfactory explanation, to observe, that we view these phenomena with pleasure, because they are associated with fine weather, and with the many advantages which result from it.

ON THE EMOTIONS RECEIVED FROM THE REFLEX
SENSE OF BEAUTY.

HAVING discussed this branch of the subject at some length, I proceed in the lectures, to inquire into the import of the term beauty, as applied to form, to sound, to genius, and to virtue.

Every one knows that there are certain forms, simple and combined, which, from their regularity, variety, proportion, symmetry, and congruity, are esteemed beautiful. Examples are referred to of objects possessing some of these qualities. In like manner, an explanation is here given, of what constitutes audible beauty; including such considerations on melody, and harmony, as seem requisite to point out their relations to different states of mind, and conditions of human improvement. The development of this doctrine is still further extended, and its application illustrated, as it respects the beauty of a problem, a theory, a system, character, conduct, and manners.

“ Is aught so fair,
In all the dewy landscapes of the spring,
In the bright eye of Hesper or the morn,
In nature's fairest forms,—is aught so fair
As virtuous friendship ?”

AKENSIDE.

I next go on to the second head of the analysis of the powers of taste, in which I draw the attention of the student to the particular character of those agreeable emotions which are received by means of the reflex sense of beauty. In the former section, he was directed to attend to certain qualities, in a great variety of objects, to which the epithet beautiful is applied; here, he is invited to examine certain modes of sensation, and states of feeling, produced by those qualities on the percipient principle, denominated an internal sense. The student must expect to meet with more difficulty in explaining emotions and sentiments than operations of intellect. In forming our notions of the latter, we are much better assisted by analogy taken from the external senses, than in the former;—hence the difficulty of describing and characterizing the different classes of emotions.

It is first of all, then, abundantly obvious that the emotions and sentiments produced in the mind by so many different objects, or kinds of beauty, cannot be in every respect the same. The experience of every man will convince him, that the feeling of which he is conscious is not precisely the same, when he contemplates a beautiful shell, or flower; when he examines a poem, or picture; and when he reviews the details of a generous action. But, with minor differences, there may still be some common feature, by which these sentiments will be recognized, as belong-

ing to the same family;—"Quales decet esse sororum."

The emotions produced by beauty, of every kind and degree, are certain modifications of admiration and love; proceeding not from any view of immediate or ulterior advantage, but instantaneously excited by the mere contemplation of the beautiful object. It is almost characteristic of these emotions, too, that they inspire the mind with gay and enlivening sentiments; infuse spirit and activity; introduce cheerful ideas; and dispose the imagination, as Addison expresses it, to run into agreeable trains of association, diffusing a secret satisfaction over the whole soul. Even the terms in which these feelings are expressed, indicate the agreeable nature of beautiful objects. Beauty is said to charm, to enchant, to bewitch. With regard to intellectual and moral beauty, indeed, the sentiments are of a somewhat different nature. The glow of delight and animation, inseparable from the contemplation of beauty, is ennobled by the more elevated feelings of admiration, reverence, and love—accompanied with a desire to imitate, to honour, and to reward.

The emotions of beauty are easily distinguished from those of the other reflex senses. The feelings produced by the sense of novelty are tumultuous and fluctuating; they are easily excited, and soon subside; and, after one impression, are never found to rise again to the same height. The sentiments inspired

by the beautiful are, on the contrary, both more equable and durable; and the mind returns, repeatedly, to the contemplation, without any diminution of pleasure. The emotions of grandeur, again, are grave and solemn, disposing the imagination to serious trains of thought, and thus constituting a character of feeling altogether different from that of beauty.

Upon the whole, then, it may be concluded that, however dissimilar beautiful objects may appear, in other respects, they all possess the common quality of giving pleasure, such as has just been described, and of exciting emotions of the same tendency. Even the sentiments which arise from contemplating a generous action, or an unspotted character, are, to a certain extent, in unison with those excited by the view of a fine landscape, or the tranquil brilliancy of the setting sun.

From these illustrations, accordingly, we may arrive, step by step, at the knowledge of the cause, why the term beauty has been applied to so many different objects; and, from what has been said, it may not seem presumptuous to infer that it is similarity in the emotion excited which leads to the application of the same term, in cases which are not in all respects similar. This object, and that object, are called beautiful, because they produce, each of them, by means of its peculiar character, certain feelings which are marked with many common properties.

An eminent philosopher of the present day, who, to his other great merits, has certainly added that of illustrating some abstract parts of his subject with more precision and elegance than any of his predecessors, maintains that the term beauty is applied to a series of objects, having a common quality, in such a state of evanescence, that, though you may discover this common quality betwixt A and B, and between B and C, and between C and D, yet there is no possibility of discovering it between A and E, or, indeed, any three objects of the given series. This illustration does not appear quite satisfactory. Nothing seems more obvious than that A, and B, and C, receive the application of the term beauty, because they possess a common property, or the power of exciting a similar emotion. Suppose, therefore, that, instead, of these alphabetical characters, the term beauty were applied to a series of things, to colour, to form, to sound, to certain exhibitions of intellect and virtue; it would, according to this theory, be found that there was no particular relation subsisting between the first and second, the second and third, the third and fourth, constantly proceeding towards evanescence, and incapable of being traced as subsisting between the first and third, or second and fifth. So far, indeed, is this from being the case, that, in whatever order, or in whatever rank, of the series, we place colour, form, and sound, we shall perceive the ground of relation among all the members indiscriminately; and, moreover, that this relationship consists not in the external qualities

of objects, nor in the organic affections made on the bodily senses, but in the character of the emotions and feelings which these qualities produce in the mind. All objects, as has been already observed, which excite the emotions appropriate to beauty, are, from the barrenness of human speech, denominated beautiful; and the extent of this quality, in particular objects, is not to be ascertained from their relation to one another, but from their several effects upon the percipient principle in the mind of man.

The attention of the student is directed, in the last place, to the final cause of beauty, with the view of suggesting suitable motives to the prosecution of this interesting and instructive subject.

The gratifications of this sense constitute the most innocent and refined enjoyments which fall to the lot of man upon earth, and afford, at all times, an elegant pursuit and agreeable relaxation. The great Author of Nature has surrounded us with the fair and the beautiful : for,

“ Not content,
 With every food of life to nourish men,
 By kind illusions of the wondering sense,
 He makes all nature beauty to the eye,
 And music to the ear.” AKENSIDE

That we may duly estimate the value of the pleasures derived from this sense, we have only to imagine the human mind in the possession of all its other

faculties, and deprived of the sense of beauty. The objects which encompass man on all hands, and which, with his present conformation of faculties, afford him so much delight, would then entirely fail to attract his notice, except inasmuch as they should appear to minister to his sensual appetites, or to hold out the hope of distant advantage. The landscape, in all the glow of summer beauty, would be overlooked; the sweetest melody of the grove would be neglected; the sun himself would perform his course unnoticed and unadmired, except in so far as his heat might be conceived to operate beneficially upon animal and vegetable nature.

But the operations of this reflex sense not only promote the innocent enjoyments of man; they also become the noblest incentive, and the most energetic motive to study the works of nature, in all her departments. The beautiful in objects first attracts his attention, and invites inquiry; scientific views of a more profound description succeed; and the student is thus allured into the very recesses of creation; into the calculations of the astronomer, and the discoveries of the chemist. In this progress, accordingly, the student of natural science approaches nearer and nearer to the Deity himself, the great source of all beauty, and excellence, and perfection; and the more closely we connect the fair things of the material world with the attributes of the Omnipotent Creator, the more holy will be our lives, and the more refined will be our desires, with

respect to a future existence. Destined for the enjoyment of perfect beauty and excellence hereafter, the wise author of our nature has endowed us, in this state of being, with a sense, calculated, at once, to make us enjoy whatever portion of these qualities are vested in matter, and to inspire an ardent wish for a more complete display of them, in that state, where the faculties of man shall be invigorated and enlarged, and where the works of God shall be more intimately known.

After finishing the analysis of the reflex senses of beauty, a similar analysis is given of the corresponding senses of novelty, grandeur, sublimity, ridicule, and imitation. The same method is pursued, in relation to all these faculties: 1st, The qualities, in external objects, are pointed out which impress the senses, whether directly or by association; 2dly, The peculiar character, or distinguishing features, of the several emotions are explained, as connected with their particular senses; and, 3dly, The final cause of these emotions is illustrated, and the various purposes which they are meant to serve in the human constitution are fully explained. In the details, arising on these points of investigation, an appeal is constantly made to the experience of the student, to his observation, his feelings, and judgment.

To this analysis of the reflex senses is added that of sympathy and the moral sense; being in some

measure connected with the powers of taste, in point of analogy, as well as in the means of improvement. In this division recourse is had, at every step, to example and illustration, arranged, according to the best of my judgment, so as to excite the attention of my pupils, and to encourage them in the prosecution of their studies.

I conclude this part of the lectures with showing, that there is little prospect of carrying the science of taste to any high degree of perfection, without a strict analysis of the mental powers upon which it depends; a knowledge of their respective objects and operations; and a copious collection of well established facts, to serve, at once, as the basis, and as the means of illustration.

ON THE CULTURE OF THE POWERS OF TASTE.

IN the analysis of these powers, as exhibited in the foregoing chapter, it has been shown that they are partly sensitive, and partly intellectual; and that their various offices and operations cannot be satisfactorily explained but on the supposition of their compound nature; and, moreover, that those authors who have assumed the simplicity of these faculties, and have endeavoured to account for the different effects which attend their exercise, by ascribing them, entirely, either to intellect or sensation, have failed of success in many important particulars. Taking it for granted, then, that, by means of the analysis now alluded to, the student has been enabled to form a tolerably distinct notion of these mental endowments, I proceed, in this part of the lectures, to point out the proper method, or course of study, by which they may be improved, so as, in due time, to attain that happy union of correctness and delicacy, upon which a good taste so intimately depends.

That these powers are susceptible of great improvement may be illustrated by their progress, in rude nations, from a weak and unformed state to considerable degrees of perfection; and also by the gradual advancement, in more civilized societies, of the various works of art. These, at first, betray many marks of an unenlightened and even perverted

taste; but, afterwards, as knowledge increases, and delicacy gains ground, are seen to throw off the taint of barbarism, and conform, by degrees, to the maxims of intellectual refinement. To enable him to follow out the various steps of this progress, the student is directed to such histories of early nations as supply him with the clearest and most authentic notices, relative to their pursuits, and predilections, in the department of taste; the objects selected by them to display or to gratify it; the gradual development, and cultivation, of the several faculties now under consideration; and, above all, the train of circumstances which gradually suggested the necessity of change, and the principles which regulated their successive improvements, in the arts and elegances of life.

An opportunity is here taken to impress upon the minds of the younger students, that good taste is closely connected with good morals and propriety of conduct; that the most exalted of all the species of beauty is the beauty of VIRTUE; and that, although the perception of excellence is not altogether incompatible with vicious habits, yet few bad men have been distinguished by a nice taste, or keen relish, for the beautiful and sublime, in nature or in art. The young man is thus taught that his taste will be most successfully improved by those pursuits and studies, which tend most directly to preserve delicacy of feeling, and to cherish the virtuous sensibilities of the heart. In this respect, the rules of art

are made subservient to the laws of virtue; and the painter or the poet, accordingly, who transgresses against the latter, is universally held guilty of an offence against both.

As the powers of taste, agreeably to the explanation just given, partake of intellect, as well as of sensation, it naturally follows that whatever exercises are found to promote the general culture of the understanding, clearness of conception, accuracy of judgment, and propriety of language, must also promote the culture of the faculties of taste. This is obvious from the simple consideration that the intellectual powers, by which we perceive and judge in matters of taste, are the same which are employed in determining truth and error, in the department of science, and right and wrong, in that of morals; the exercise of every faculty being only modified by the particular subject to which it is directed. The French critics, accordingly, have given to that modification of the intellectual powers which is manifested in the studies of taste, the name of *bel-esprit*; a term which, although not exactly rendered by the phrase *fine understanding*, sufficiently expresses that quickness of discernment, that clearness of thought, and that activity of imagination, which are necessarily implied in our decisions on matters of taste; and, at the same time, distinguishes these intellectual processes, from that more vigorous and profound exertion of the understanding which is required in the pursuits of science. Every exercise, therefore, in the course

of education, which accustoms young minds to distinguish that which is separated by less perceptible gradations—to found judgments upon such perceptions, and to express these judgments with readiness and accuracy, must be more or less favourable to improvement in taste.

With regard, on the other hand, to the sensitive properties of the powers of which we are now speaking, the means of culture must be derived, as in the case of the external senses, from practice; and, particularly, from a minute attention to such objects as excite the greatest degree of interest or curiosity. As the palate of a wine merchant, and the nostrils of a perfumer, acquire, from constant use, a superior delicacy and discrimination; so, in the fine arts, as also in the appreciation of natural beauties, a certain quickness and refinement of eye and ear are attained by practice, which, to those who have not studied painting and music, appear almost incredible. It may be said, perhaps, that, so far as the mere organic impression is concerned, the field for culture is not very extensive. The principal exertions of the student must, no doubt, be raised to a higher object, and directed to such maxims and rules as are founded upon careful observation and just reasoning; and, in particular, to the works of the most approved masters, in the several departments of art, whether poets, orators, statuaries, or painters.

But, although all the fine arts are closely connected

together, and exhibit so many common qualities as to constitute a relationship, both as to their origin and the general object which they are meant to promote, it is very evident, at the same time, that some of them, painting, sculpture, and music, for example, cannot be properly explained, either as to theory or practical rules, in a course of academical lectures. In such a course, the professor must select his materials from poetry, eloquence, and history; for, of these he can present to his students such specimens as will, at once, serve for models to be imitated, and also afford him an opportunity of illustrating the principles which guide the poet and the orator in their compositions, and of pointing out the ability and skill with which any particular poem or speech is executed.

Some have expressed doubts whether history should be ranked among the fine arts. Without entering into the general discussion of this question, I admit historical compositions into this portion of the lectures on taste; as affording an excellent field for illustrating the rules of order and arrangement, in the distribution of materials, as well as the rules which respect the accommodation of style to the different parts of a subject; being, all of them, finely exemplified in the great variety of topics which necessarily employ the pen of the historian—in narration, description, eulogy, indignation, and reproof.

The method, then, which is pursued in the lectures

on the improvement of taste, may be described, in a few words, as consisting of directions for studying, in the first place, the beauty and grandeur of external nature—next, the best models of composition, in the departments of poetry, eloquence, and history—and, lastly, the principles of the art of criticism; the whole being accompanied with such examples and illustrations, as seem best adapted to assist the comprehension and memory of those who are only entering upon such studies. There is another object, too, promoted by the copious manner of elucidation to which these subjects naturally invite the teacher. The students are, thereby, supplied with abundant and suitable topics, for writing exercises on such questions or doctrines as may be suggested in the course of the lectures, or prescribed by the professor, agreeably to the system followed out in his class.—As, however, it is not pretended that the lectures, now to be described, contain any thing new, either in the plan or execution, a mere sketch will be sufficient for our present purpose.

ON THE STUDY OF THE BEAUTY AND GRANDEUR
OF EXTERNAL NATURE.

THERE is little difficulty in collecting materials for this division of the subject. The beautiful and the grand, in the material world, have been favourite topics both with ancient and modern authors: and they are usually found to seize the attention, and awaken the fancy of the young, even without the aid of scholastic discipline, or the more powerful influence of example. The natural phenomena which exhibit these qualities, in their more striking characters, have uniformly taken the first hold of the rising powers of taste and genius; and, aided by the emotions of love and admiration, which they never fail to excite, they have, in most cases, called forth the first fruits of these mental endowments, in poetry or in prose. The habits and associations, too, of those who enter a first class of philosophy are extremely favourable to the development and culture of the powers of taste. They have just arrived, so to speak, from the regions of ancient Grèce and Italy; where their imagination must have been, in some degree, awakened, by the lofty conceptions, the beautiful descriptions, and the classical elegance, which characterize the literary productions of those celebrated countries.

The chief care of the teacher—and he will find it

attended with some difficulty—is to select such phenomena as are most likely to call forth the interest of his pupils, and to suit the great diversity of taste and talent which may be expected in a numerous class. In many instances, too, he will have to make the first impressions, and to create in their minds the first emotions, connected with such pursuits. He will have to overcome indifference in some individuals; and, in a greater number still, he will have to clear the mind of those obstructions and obstacles which arise from perverted habits, and from prevailing trains of thought, foreign to the immediate object of study. He must, for this purpose, exert himself to make young persons feel that they cannot expect to succeed in this department, without carrying with them, to the field of observation, a mind not only free and disengaged, but even previously prepared to receive those impressions which the beautiful and sublime, in the works of nature, are calculated to produce. Their business is not merely to know, or to form conceptions of the objects to which their attention is directed; but also to receive impressions, and to be animated with a specific emotion, arising from the presence of these objects: and nothing is more certain than that such impressions and emotions cannot find a place in that mind, which is either pre-occupied with other thoughts, or agitated with other feelings. When the mind is engrossed with pursuits, or led away by trifles, the magnificent picture of the material world presents only a blank, equally unmeaning and uninteresting. Objects the most beau-

tiful and the most grand, on the earth, and in the heavens, pass unobserved. The landscape has neither colour, nor features, nor character. The sun rises in his glory, but is not perceived: he sets in all the gorgeousness of a summer's eve, surrounded with his robes of light and brilliancy, and yet the heart remains untouched. The teacher must, therefore, endeavour, in the first place, to remove these impediments, and send his pupils forth into the wide fields of nature, fitted to receive, and to enjoy, the impressions produced by the beautiful and the grand.

But the director of youthful studies has it not only in his power to select and recommend the objects which are best calculated to awaken and improve the taste of his pupils, but also to strengthen those powerful associations which, even more than the direct objects themselves, excite the latent powers of genius, and lead the imagination into new and pleasing trains of thought. For example, let a mind, duly prepared for contemplation, be directed to observe, in a fine summer morning, the rising sun, coming gradually and majestically into view, and thereby changing altogether the face of nature. The direct effect produced by the presence of this great luminary is, no doubt, one of the deepest emotions of wonder, admiration, and delight; but how greatly are these feelings enhanced by the introduction of other ideas naturally and closely associated! The mind is instantly raised to the contemplation of that almighty power which called this glorious object

into existence, and stored him with that inexhaustible treasure of light and heat, which flow from him with inconceivable velocity, pervading and supporting the numerous worlds which move around him. From this, the eye passes to the amazing change which his presence produces upon animate and inanimate nature, to the gay and beautiful colouring spread over the whole creation. Then, the ear listens to the untaught hymn which breaks forth spontaneously from the numerous tribes of animals, which owe their existence, and the main source of their pleasure, to his genial rays, as the instrument of creative goodness and bounty. Other objects, and other associations, still, present themselves to the contemplative student. He beholds man himself, called as it were into new life, by the return of day, and, in the full enjoyment of his hopes and energies, sending forth his more rational strain of devotion and gratitude. Thus, the direct emotions which the object itself produces are multiplied a thousandfold by the power of association; every related idea, in this case, contributing to the general sentiment of delight and joy. Nor is this all. The mind is not satisfied even with rapturous emotions, considered as an ultimate object; on the contrary, it is prompted to inquire, to investigate, to conjecture, to collect facts, and to draw inferences; to look beyond what is seen to something which does not meet the senses; and thus, not unfrequently, the young man of genius is conducted from feeling to science, and from the exercise of taste to that of the understanding. In minds of a

different cast, such converse as we have now described with those objects "whose line has gone out through all the earth, and their words to the end of the world," proves the occasion of deep enthusiasm and poetical inspiration, and sometimes gives birth to the noblest works of art. It creates a frame of mind similar to that alluded to by one of the most correct of our English poets, who said he "lisp'd in numbers, for the numbers came."

It is unnecessary to state, at greater length, the general tenor of the lectures, by which the student, in the first philosophy class, is directed, in his inquiries, into the grandeur and beauty of external nature, as objects of taste; and by which, also, he is assisted in cultivating those susceptibilities of mind, which constitute the channel through which these qualities are perceived and enjoyed by the human being.

ON THE IMPROVEMENT OF THE POWERS OF TASTE
BY THE STUDY OF COMPOSITION.

It requires no proof to establish the position, that the powers of taste, in youth, are improved by examining good models in poetry, eloquence, and history; and the teacher, as has already been remarked, is possessed of the means not only of presenting the best specimens of these, in his lectures, but also of expounding the principles, and of displaying the skill, which are to be traced in their composition. When the young artist in painting, or in sculpture, has received instructions, even from the ablest masters, he still finds it necessary to travel into those countries where finished models are to be seen; convinced that he will learn much, from the study of these, which cannot be taught by rules, or conveyed by description. Thus, one eminent painter, after having made, as he thought, great proficiency, went to Rome for the purpose of examining the fine pictures which adorn that celebrated metropolis; and he was often, afterwards, heard to declare that, till then, he knew nothing of his art. The student in poetry, in eloquence, and history, is not, indeed, under the necessity of travelling into foreign lands in search of excellent models. But he may, notwithstanding, require assistance and direction, in studying them to
ge, even when put into his hands; and,
art of the lectures, accordingly, it is the ob-

ject of the professor to instruct him in the proper method of reading, and of imitating these models, for the improvement of his taste. Nor is it a slight and superficial acquaintance with approved authors that is sufficient for this important purpose. The student must have them present to his mind, in regulating his trains of thought, his modes of expression, and, above all, his use of ornament, and rhetorical figures; for, without an intimate and even minute knowledge of the best literary productions, it is as impossible to acquire a good taste as it is to acquire ease and elegance of manners, without a familiar intercourse with good company.

The student is supposed already prepared for a critical perusal of the Greek and Latin classics, by his previous knowledge of the language in which these works are composed; but, as he is also to study English authors, and to compose in the English language, it is absolutely necessary that he should make himself fully master of the grammar and structure of that language. It continues, however, notwithstanding some recent improvements, to be a reproach on British education that, while the ancient languages are taught in their most minute parts, and occupy a great portion of the time allotted for study, both at school and college, the language in which we ourselves speak and write receives comparatively little attention. Before, therefore, I enter upon the study of English composition, and by way of an introduction to it, I have thought it necessary to impart, in

the lectures, such instructions, in respect to the English tongue, as may prepare my pupils for understanding the various principles of composition, in general; and, particularly, for producing the several specimens of skill in that important art, which are regularly required from themselves.

In pursuance of this object, they are first made acquainted with the origin and component parts of the language—its structure as compared with that of other languages—its prevailing idioms—the principles which regulate the position of words in sentences—the nature, diversity, and requisites of the principal kinds of style—the causes of this diversity—the means of forming a correct taste in composition, with such illustrations as these several topics naturally suggest. The order in which these subjects are explained, in the lectures, is stated in a short synopsis of the course, published for the use of the students; on which account, any farther details are here unnecessary.

It has been objected, I am quite aware, that such topics ought not to be ranked among the pursuits of philosophy; as being only suited to the dissertations of the school-room, or for entering into the prelections of a classical tutor. But my experience has led me to believe that the philosophy of language is better fitted than any other, at a certain stage of the student's progress, to open his mind, and to promote his general improvement. It should be remembered

that the inquiries, on this head, are not confined to the mere properties, or offices, of the different parts of speech, but extend to the connexion which subsists between these external signs and the mental operations which they denote—to a comparison of the matter with the language in which it is clothed, and to a consideration of their reciprocal influence upon each other—to an examination of the principles which, in different languages, give occasion to peculiarities in their arrangement—and, lastly, to diversity of style, as founded upon varieties in the character and talents of individuals, or of nations. These subjects, and others connected with them, furnish a selection of materials, which afford a constant and surely a very suitable exercise for the intellectual powers of the student, at this early period of his philosophical course.

Having finished these elementary topics, I proceed, as has been already explained, to set before my pupils the best models of composition, in the several departments of literature.

Composition, as it respects the subject-matter, has been divided, by LORD BACON, into three classes, according to the three principal faculties of the understanding, which are more immediately called into action, viz. memory, reason, and imagination. In the first class are comprehended historical compositions, of every form, and on every subject. All philosophical compositions, by whatsoever name they

are called, belong to the second class; and to the third, those works in which the faculty of imagination is principally exercised.

It does not appear to me that there is any thing gained by this division, either in point of accuracy or clearness; for there is no composition, under any one of these three heads, which could possibly be executed without the use of all the three faculties, upon which the classification is founded. At any rate, how scientific soever it may be, it proceeds on principles much too general; and is ill calculated for giving assistance to young students in forming their judgment on works of literature, on the specific character of the various orders of writing, whether in poetry or prose, and on the merits of individual compositions, regarded with a reference to the acknowledged canons of criticism.

With a view to the object of lectures, in a first philosophy class, literary composition may perhaps be more usefully divided; 1st, According to the particular end proposed by the author of the work; 2dly, According to the nature and qualities of the materials employed by him for that purpose; 3dly, According to the form which these materials are made to assume, and the principles of arrangement adopted in their distribution; and, 4thly, According to the particular style in which the composition is executed.

It is obvious, indeed, that no just notion can be formed of any composition, or any adequate judgment pronounced on its merits, without first having the means of comprehending the design of the writer. To that every part must bear a strict relation; and, whatever may be the nature of the materials, they must, at least, possess the particular qualities necessary to effect the end in view. Again, however judiciously the materials may be selected, they must also be arranged, and disposed, on principles calculated, in like manner, to accomplish the object of the work: and, in addition to all this, the style must be adapted, at once, to the nature of the materials, and to the general design intended to be realized.

The standard, implied in this method of classification, may be extended to compositions of every form, while it affords the best means for ascertaining the genius and skill of an author in every part of his work;—his powers of invention, arrangement, argumentation, narration, and description. The details on these points, as delivered in the lectures, are meant to assist the student in forming a correct judgment, with regard to the structure and general merits of the most approved works, in history, poetry, and eloquence. As an example of the manner in which this is attempted, but without entering into the minute and familiar illustration indispensable in lectures addressed to very young men, I shall

here introduce a few remarks on epic poetry, one of the most difficult kinds of literary composition.

In the outset, the student is directed to form an acquaintance with the author, by entering into his first conception of the particular work, submitted for this purpose, to his consideration; and afterwards, to follow him closely, in every train of thought, in every suggestion of fancy, and in every correction of taste, which fills up the space between the design and the complete execution. In doing this, he is likely to take a greater interest than he would otherwise feel, in the progress of the poem. The subject gradually opens before him; and, by having a clear conception of the general plan, he will acquire more distinct notions of the subordinate parts, as they are successively developed. Suppose the instance fixed upon to be the *Iliad* of Homer, the great model and standard of epic compositions. On the mind of Homer, then, distinguished as it was by vigour of imagination and powerful sensibility, the great events and splendid achievements of the Trojan war may be conceived to have made a deep impression. His active fancy, it is very probable, would often wander amid the scenes of heroism, which are associated with that memorable event, and insensibly contract that ardour and enthusiasm which first prompted his great undertaking; and, at this stage of his progress, or rather upon the original suggestion of this attempt, the student is directed to examine, along with the author, who may now be imagined to be so employ-

ed, the fitness of the materials, hereby presented, for the subject of an epic poem; their remoteness from his own time; and the interest with which they would be viewed by the mass of his countrymen, as descendants of the Grecian heroes.

It is even probable that the poet's ardent and adventurous mind may have prompted him to the execution of detached parts of this great work, before he had fully completed his general plan; and that it was only as he proceeded in dressing up his scanty materials in the rich garb of poetry, that the various incidents, which constitute so much of its charm and interest, were successively suggested to his mind. A vigorous imagination, it is well known, trusts to its own creations more than to real events, or actual occurrences, upon which it exerts its powers. The poem of *Paradise Lost* is built upon a few hints, taken from the sacred scriptures.

The general plan of the poem being conceived, and the course of action being sketched out, the next object of the author is to connect these with such characters, selected from among the heroes of his story, as will embody, in the most proper manner, the several parts of the varied enterprise, which he has undertaken to commemorate. In this respect, Homer enjoyed very singular advantages; for tradition had brought down to the times in which he lived, not only the splendid events of the war which he had chosen for his subject, but also the names, the rank,

and the genealogy of the several persons to whose valour or wisdom these events were ascribed. Such actions, again, could not be performed without the accompaniment of others of a subordinate nature, requiring, of course, for their execution characters of an inferior order. In the structure of the epic, accordingly, a certain number of detached and separate actions, performed at different times, and in different places, may be permitted to share the interest and attention of the reader; but in such a manner, at the same time, as not to violate the three unities, as they are called, of time, of place, and of action. The execution of the principal and more difficult parts of the enterprise is uniformly assigned to one personage of superior rank, ability, and character. It is not to be inferred, however, that the strict observance of these rules is absolutely essential to an epic poem; for they have been frequently violated, by authors of great eminence, without impairing, in any great degree, the interest of their works.

In following out the leading principles of this species of composition, it is further to be observed that, as great and valorous actions naturally imply difficulty and danger, the poet, with the view of engaging our sympathies, and of raising our estimation of the courage and perseverance of his heroes, must contrive to link together such a combination of events, as may give ample scope for displaying all the fine qualities, and all the noble principles, which ought to distinguish the chiefs of the epic. As, however, the

reader would be disappointed and grieved, were the principal actors to sink under their difficulties, or to be left struggling with misfortunes, the course of events must be so arranged as to lead to a natural and gradual extrication from every untoward adventure, and to bring the enterprise, in due time, to a happy conclusion. These qualities, too, in point of action, character, and general result, must be crowned with the additional recommendation of virtuous motive, disinterestedness, and magnanimity, on the part of the actors; at least on the part of him who is set forth in the character of the hero.

These general principles of epic poetry, which have been frequently illustrated by writers on criticism, are derived from an examination of the works of Homer; in whom genius and judgment were combined, in a singularly happy proportion. His genius, for example, is strikingly displayed in the grand and comprehensive design of his poem; whilst his judgment is no less manifested, in confining the action to the busiest and most interesting period of the Trojan war; uniting thus, in his plan, and bringing forward, in his details, every thing which could lay hold of the affections, the prejudices, and the vanity of his countrymen; and, at the same time, give pleasure to cultivated minds, in all parts of the world, and in all succeeding ages. Nothing, indeed, could afford a higher idea of the power of imagination, regulated by a sound judgment, than the invention of so many characters as are exhibited in the *Iliad*—all so admi-

rably calculated for the various parts assigned to them,—all possessing valour and courage, as their predominant qualities, while they are, at the same time, distinguished from one another by a certain peculiarity of disposition and manners. So closely consistent, and so naturally allied, is every character with the actions performed, and with the sentiments expressed, in every combination of circumstances in which the several personages are placed, that it is scarcely necessary to introduce them to the reader by name. In all situations, each speaks, thinks, and acts, in a manner peculiar to himself; and in such a manner, too, as to distinguish him completely from every other. Achilles is brave; and Hector is brave; so are Ajax, Menelaus, and Diomedes; but the bravery of Hector is not of the same kind with that of Ajax; and no one will mistake the battle-shout of the son of Atreus for the war-cry of Tydides.—To connect all the parts together, and to make the various incidents of the story bear upon the chief design, Homer selected for the main topic of his poem, the resentment of Achilles; as being the source from which all those events, more or less directly, took their rise, and to which the principal exploits of his heroes maintain, throughout, a constant reference.

With regard to the *fiction* of poetry, as sanctioned by the practice of epic writers, it would be superfluous to enter into much detail, in these outlines. The student is reminded that this species of poetical license is not confined to the introduction of super-

natural personages, but may be extended to every part of the design, as well as to every part of the execution; enlarging what is contracted, raising what is low, embellishing what is beautiful, removing what is defective or unbecoming; and thus acting in subserviency to the main object of the poet, viz. the excitement of wonder, delight, admiration, and love, in the mind of the reader. Events, characters, and manners; the dangers of the field; the triumphs of victory; the horrors of servitude; the lamentations of the vanquished; and the generous clemency of the conqueror, are all within the reach of this magic power.

The origin of fiction in poetry is, no doubt, to be traced to the wish, which so naturally occurs to the mind of a poet, to overcome that indifference with which we contemplate such ordinary characters and actions as are to be found in history; and this violation of strict veracity seems, in a great measure, justified by the powerful influence which sentiment exercises over the imagination; it being, in some instances, of equal strength with the impressions derived from external objects, and even, in certain cases, superseding the functions of sense, and obliterating the traces of consciousness. The range of this license, however, although extensive, is not boundless. The poet is expected to regulate the use of fiction, by the particular object which he professes to have in view, in the composition of his work: and, in every case, he must adhere, in his poetical crea-

tions, to what is natural, probable, and consistent. It is not easy to define more exactly the limits which ought to divide truth from fiction, in epic poetry; for as this is the field in which genius chiefly displays its power, and its taste, the laws of criticism, as they will not be regarded, ought not to be too strictly enforced.

The student is next instructed in what is technically called the *machinery* of an epic poem; or the occasional introduction of divine persons, directing and assisting the endeavours of favourite mortals. This practice, obviously originating in the mythology of ancient Greece, is attended both with advantages and disadvantages. There can be no doubt, that it has given occasion to much sublime description in Homer, and in the other epic poets who have followed his footsteps, as well in his manner of writing as in the choice of a subject; but it may fairly be questioned, at the same time, whether it has not detracted very considerably from the admiration which would otherwise have been bestowed upon human energies, left to their natural vigour and foresight. After a comparative statement of the good and bad effects attending the use of pagan machinery, some remarks are added, on the influence which it exerts on the minds of young men, in the course of their literary pursuits, to whom the study of it has been recommended with much ingenuity and eloquence. The purer dispensation of the christian religion, indeed, precludes, in a great measure, all modern poets

from using, at least with any prospect of success, the machinery so freely employed by the ancients; and to me, whatever may be the opinion of critics, it has always appeared an indispensable duty to endeavour to strengthen, in the minds of my pupils, the power of reason, even in matters of poetry, and to establish its supremacy over prejudices and prepossessions of every description.

This account of the principles of epic composition is concluded with some remarks—on the introduction and use of episodes—on the rules of arrangement in epic poetry—and on the qualities of style adapted to this species of writing.

The explanation given, in the lectures, on these subjects, and on others nearly allied with them, necessarily leads the teacher to bring before the student such doctrines and illustrations as throw light, not only on epic poetry, but on poetical composition in general, and even on history, real and fictitious. In forming a judgment of these, and indeed of all other kinds of writing, criticism ought to be directed to the object of the author—the quality of the materials which he brings forward to accomplish his end—and the skill which he displays in their arrangement; together with the propriety and eloquence of the language in which they are embodied. Philosophical composition, whether in the way of analysis or synthesis, or according to the scholastic method of syllogism, has been already explained, under a former

division of the lectures. Here, too, the general rules just mentioned will be found to apply, modified by the simple observation that, as the subjects in this department are strictly of an intellectual nature, turning upon the relations of things, as they present themselves to the understanding, and not to the imagination, that arrangement is the best, which contributes most to clearness and accuracy of investigation; and that language is the most suitable, which expresses the different processes of the mind with the least possible ambiguity.

ON THE IMPROVEMENT OF THE POWERS OF TASTE
BY THE STUDY OF CRITICISM.

It will not be expected that, viewed as one branch of the business of a first class of philosophy, I should enter at any length into the extensive field of criticism. My object in every part of my course is to select such materials, as appear best suited to the capacity and previous attainments of the young men to whom the lectures are addressed, as also to promote their progress in acquiring the valuable habits of reflection, arrangement, and composition.

With the view likewise of improving the correctness and delicacy of his taste, the student is directed, in the last place, to a judicious examination of those rules, which observation and experience have established, for the regulation of the judgment, in matters of literature and of the fine arts. These rules, it is hardly necessary to observe, do not precede, in the order of time, the appearance of excellent specimens in poetry, history, and painting; but are, on the contrary, derived from a critical perusal and examination of these models, and afterwards made known for the guidance of such as rather imitate than invent. Many fine specimens of reasoning and eloquence, for example, existed, before the rules of logic or of rhetoric assumed a regular form; and the works of Homer had gained the admiration of the world, long prior to the time at which Aristotle composed his

Art of Poetry. In short, it was by observing what some authors had already successfully done, that writers on criticism were enabled to point out what ought to be done by others.

The pleasure received from the most approved works in literature and the fine arts, and the general admiration bestowed upon the powers of genius which produced them, must have soon excited attention to the specific nature and source of that pleasure, as connected with the faculty of taste in the human mind. Hence, the origin of the art of criticism; in the very commencement of which it must have been perceived that, with certain discrepancies arising from defective instruction or early associations, the opinions of men on the qualities of composition, or other works of art, exhibit a striking uniformity; that, in general, they agree in calling the same things excellent, or the contrary, and in receiving from them a similar emotion of satisfaction or dislike. Thus, in process of time, from examining a great variety of instances, and from ascertaining with precision that which pleased or displeased in particular cases, a set of rules would be constructed; directing what ought to be done and what ought not to be done, and thereby founding, upon the basis of principle, a distinction between good and bad taste.

In prosecuting his studies, in this department, there is no quarter to which a young person will be more likely to repair for assistance, than to standard

works of criticism. Those who have gone before him, in the path in which he wishes to tread, and who have travelled in it prosperously, are no doubt well qualified to direct him, as to the manner in which he ought to proceed. It is necessary, however, to inform him that even under this enlightened and experienced direction, he must proceed with caution; and, in his first acquaintance with works of taste, he must be reminded to make but a sparing use of the technical forms and maxims of the professed critic. The respect due to great talents and to superior knowledge is apt to dispose young minds to receive, with implicit confidence, the opinions of established writers, and to deter them from sufficiently exercising their own understanding and natural sensibility. The student should, therefore, in the first place, attach himself to the unassisted perusal of the best models; forming such opinions as his judgment may sanction, and cherishing such emotions as the subject itself may happen to excite. He must not go to the critic to learn what ought to please or displease, or when to approve and when to express disapprobation. His part is, to begin with thinking and feeling for himself; and then to compare his opinions and feelings with those which bear the stamp of authority and of established taste. The general object of the lectures, accordingly, on this particular head, is to instruct young men at what period, in what manner, and with what views, they ought to apply themselves to the study of critical writers; how they may derive from such authors

the assistance of which they stand in need; and how they may escape those errors to which they are exposed, from not understanding, or from misapplying, the established rules of criticism.

The student is here taught to view in its proper light the objection which has been sometimes urged against the critical art, as being prejudicial to rising genius. It is remarked, in answer to this cavil, that the knowledge of rules founded upon the constitution of the human mind, and collected from the works of judicious and enlightened authors, cannot possibly be hurtful to taste, nor check the exertions of youthful talent. On the contrary, such knowledge communicated at the proper time, and used with discretion, can hardly fail, on many important occasions, to correct mistakes, to supply deficiencies, and to suggest improvements, in general reasoning, as well as in the perception of the higher qualities of composition. It ought accordingly to be a leading object with every professor, to adapt his instructions so as not only to convey useful information upon the subjects which he himself actually discusses, but more particularly to prepare his pupils for reading with advantage, the publications of those writers, whose opinions are most approved, and who are usually recommended as guides in subjects of this nature. Such authors may, indeed, be regarded as establishing that general standard of taste by which public opinion is regulated; but in becoming acquainted with their works, the young student, so far

from suspending the exercise of his own judgment, merely investigates the grounds upon which their conclusions are supported, and compares their doctrines with the simple dictates of his own mind.

Indeed, the great object of the professor, in this part of his course, is to afford to his pupils, from the various sources which reading and reflection have opened up to him, the means of forming for themselves a standard of taste, to which they may refer such productions of the fine arts as fall under their observation. In pursuance of this end, he is naturally led to state to them, that writers on taste have, in fact, endeavoured to establish such a standard on the basis of general consent, modified by such circumstances as might render this consent definite and apparent. In every nation, it is true, and in every age of the world, there has been but a small number of individuals, comparatively speaking, whose habits and pursuits have led them to examine the principles of taste, or even to attain any practical acquaintance with the productions of genius, in poetry, sculpture, or painting. In particular countries, too, and epochs of society, the general taste has been vitiated and depraved. During the scholastic ages of superstition and ignorance, for example, the love of the fine arts, and a correct perception of their excellence, were unknown over the whole of Europe; and in like manner, under the government of Charles the Second, the public taste in England was deeply affected by the profligacy of manners which, at that

period, characterized the intercourse of society in the higher ranks.

The standard founded on general consent must be still farther modified by the license which is conceded to men of great genius, whether as authors or critics. Distinguished writers and celebrated artists assume to themselves a certain privilege to dispense with the strict laws of criticism, in their own performances, as well as in judging of those of others; and thus, the authority of general consent is frequently diminished in the very quarter from which it might be expected to derive its greatest support. It ought to be remembered, besides, that the majority of men of taste are judges only in one department; that there is no such thing as a universal *tact*; that a person may be a good judge in poetry and not in painting; nay, that he may be a good judge in one species of poetical composition and not in another. Under modifications so numerous and essential, general consent cannot fail to afford a very imperfect standard. It is sufficient for determining with respect to general excellence in matters of taste; but not for deciding with regard to minute points and rival beauties. For example, it has left no room for doubt, that the works both of Homer and of Virgil are excellent specimens of epic poetry; but it has left the question still undecided to which of these great authors the palm of superior poetical merit belongs. In these circumstances, the student who wishes to satisfy himself, as to the comparative excellence of those immortal

poets, must institute a strict analysis of the poems in question—direct his judgment to the several parts, in which similar powers are displayed—compare the genius, taste, sensibility, imagination, command of language, and general qualities of style—and thus arrive at a conclusion, guided at once by the light of his own understanding, and by the established rules of criticism. The French critic RAPIN has given a good specimen of this mode of determining comparative merits; while the remarks which accompany his estimate, instruct the student not only how to express his approval or disapproval, but also how to state the grounds upon which his judgments may have been formed.

Such is the sketch of the lectures on the means of improving the powers of taste. One particular still remains to be stated, which the best system of instruction and the most profound knowledge of the subject can neither supersede nor supply; namely, the method of conducting a regular progressive course of exercises, performed by the students, corrected by the teacher, and afterwards returned to them with instructions for directing their future efforts. But an explanation of the plan, adopted in carrying on this part of the discipline of the first philosophy class, forms the subject of the second general division of these outlines.

The lectures on the powers of communication, containing a theoretical view and a copious illustra-

tion of the means of improving these powers by the arts of eloquence and rhetoric, constitute no part of the business of the students who attend the first course. These may, perhaps, become the subject of another essay.

A general sketch has now been given of the subjects of the lectures which are annually delivered in the logic class, in the university of Glasgow, and of the order in which these subjects succeed each other, in the general arrangement of the course. The chief difficulty in drawing out such a sketch has arisen from the necessity of exhibiting a distinct specification of the several parts, and, at the same time, of avoiding a minute discussion of topics which are familiar to every person of liberal education. It is hardly necessary to subjoin that, in the lectures of which he has thus detailed the outlines, the author disclaims all pretence to originality: indeed, he conceives that attempts after novelty and ingenious views, in such matters, would have only rendered his lectures less adapted for the purpose which they are meant to accomplish.

There may, no doubt, be a diversity of opinion whether the subjects now described are the fittest, all things considered, for initiating young persons into the study of philosophy, and for supplying them with the means of following out the pursuits which may be thereby suggested—whether they are the subjects most likely to interest and exercise the intellectual

powers of youth—whether they comprehend proper topics for essays to be performed by young men just beginning to think and compose;—whether, in a word, the professor of a first philosophical class might not, in some other way, occupy, to greater advantage, the time and labour of those who are committed to him for instruction.

It has been thought, by some not altogether incompetent to judge, that the science of geometry, on account of its precision and certainty, is better calculated than any other for accustoming young persons to accurate reasoning, and for inuring them to habits of attention and perseverance; and this science, accordingly, has been established in some seminaries, as the chief occupation of young men, in the commencement of their studies.

It must be admitted, that geometrical science has a powerful tendency to fix the attention of youth, and to accustom them to distinctness in the use of terms, as well as to clear and accurate habits of thought, in appreciating evidence, and in balancing arguments: and these points, it is farther admitted, are so essential to the formation of the logical character that, if provision had not been made for them in the academical course, I should have thought it necessary to select, from the *Elements of Euclid*, a series of fundamental propositions, and to have introduced them into these lectures as a specimen of close reasoning. This, however, is rendered unne-

cessary by the establishment of a mathematical professor, who gives lectures, every day during the session, on the elements of Euclid, of plane trigonometry, and algebra; and, at a separate hour, to more advanced students, on the higher parts of mathematics, conic sections, fluxions, and the Principia of Newton. As the students in the logic class generally attend the elementary class of mathematics, they enjoy all the advantages that they would otherwise derive from the introduction of any part of the latter into the business of the former.

Nor could the object which the professor of a first philosophy class has in view be properly attained, by confining the attention of his pupils entirely to geometry. That science, as every one knows, addresses itself chiefly to the intellectual powers of comparison and deduction; and it is found from experience that, amid the great diversity of human talents, there are but few minds which discover any peculiar aptitude for geometrical investigations. Besides, as the mental faculties, in their growth and progress, exercise a reciprocal influence, and exhibit a close dependence upon one another, it is to be apprehended that the partial direction of some of those powers, while the rest are suffered to remain unemployed, may prove hurtful to their general culture. It may, indeed, be regarded as a fixed principle in education that, whenever this dependence and connection are overlooked, one faculty is sure to acquire such a preponderance as greatly to retard the expansion and improvement of

the others. Thus, during the scholastic ages, as the whole force of education was directed to the improvement of the powers of reasoning, many surprising instances of acuteness and penetration appeared among the learned, which, in some degree, rewarded the labour so painfully bestowed upon the crude and technical jargon, by which the mind was, at that time, conducted through her intellectual processes; but the bad effects of this exclusive and partial manner of instruction were, at the same time, strikingly manifested, in the total absence of invention, in the decay of taste, and in the neglect of the important powers of communication. The lectures, the exercises, and the discipline of a first philosophy class, ought, therefore, to be such as may promote equally and gradually the general culture of the mind, and the improvement of each separate faculty.

Were the business confined to the elements of geometry, the students would be deprived, in a great measure, of all those means of improvement which are connected with the knowledge and habits of language, upon which their future progress in science and in art so intimately depend. Mathematicians, it is well known, make but a sparing use of language. Their vocabulary is of small extent; being confined to a few abstract terms, algebraical characters, and diagrams. These, it is very obvious, are not only restricted to one science, but call into exercise only one class of the mental powers; whereas, in every period of education, from first to last, the study of

language, including, of course, the formation and expansion of those associations which connect thought and feeling with verbal signs, whether as used by the orator, the poet, or the philosopher, gives full scope and exercise to all the intellectual endowments,—calls into play the imagination, the memory, and the judgment—and gives birth to those rapid processes of thinking, speaking, and writing, which distinguish the accomplished scholar and the intelligent man of business.

The very perfection of the science of geometry, and the vigorous intellectual efforts necessary to reach it, in some measure disqualify it for becoming the basis of a first class of philosophy. Every step in the process is equally clear and certain. There is no room for diversity of opinion, doubt, conjecture, hypothesis, or theory. All must travel in the same beaten track, and the farther the students advance, the more is their path contracted. Those who have arrived at the highest parts of it, have few with whom they can converse.

It is admitted, that the study of geometry has a tendency to produce habits of regular and steady attention, and to accustom young persons to form their judgments on clear and certain evidence. This, however, is not the kind of evidence with which they will be chiefly conversant, in prosecuting other branches of science. The conclusions of the geometer are founded upon truths, either intuitive or

demonstrable; whereas, in ethics, politics, jurisprudence, criticism, and theology, our reasonings are supported upon different principles, and are sustained by quite a different species of evidence. The mathematician cannot proceed one step without the aid of demonstration; while the student, in other departments of human research, must rest satisfied with certain degrees of probability, and even with conjecture. There is, accordingly, no small hazard that the young mathematician may acquire such notions of evidence as to disqualify him for making progress in other branches of study. Indeed, there have been instances of able writers, who, having formed their habits of reasoning on strict geometrical principles, and having acquired a predilection for the kind of evidence on which that science rests, have absurdly attempted to carry them into discussions which did not admit of their application: and there have been not a few distinguished mathematicians, so devoted to their favourite pursuits, and so insensible to the charms of all others, as to have shown no relish for poetry, eloquence, or even the very rational studies of taste and criticism.

This, no doubt, does not hold universally. There are many individuals, and I have the pleasure of knowing some of them, who are not more distinguished by their geometrical knowledge than by the strength and soundness of their judgment on other subjects. But no general conclusion is to be drawn from a few particular instances of highly favoured

individuals: and I have likewise known several persons, greatly distinguished by mathematical attainments, who were to be ranked even below mediocrity in more common studies. At all events, it is certain that, in every case where the time and attention are chiefly devoted to geometrical inquiries, and where a strong taste is contracted for these pursuits, not only will a reasonable portion of study be denied to other departments of learning, but even a certain degree of indifference or of dislike to these will be permitted to grow upon the mind, and ultimately to disqualify the student for entering upon these studies with success.

These remarks are not to be considered as applicable to the science of geometry, viewed as a separate branch of human learning, but solely to the use which is sometimes made of it, as an introduction to philosophical education. Its utility in extending the sphere of physical knowledge; its dignity and sublimity as an instrument of thought, in the very highest track to which the human understanding can attempt to soar in the search of truth; and its general subserviency to the most exalted pleasures which reason, enlightened and refined, is capable of enjoying, are neither doubted nor denied. It is, in no respect, derogatory to this noble science, nor can it imply the slightest impeachment of the wisdom of those who introduced it, at a certain stage, into the academical course, to maintain that there are other sub-

jects, in the wide field of human learning, better fitted for the purposes of general education.

It has always appeared to me difficult to discover any good reason why all the students in a university, however different their abilities, their taste, their circumstances in life, and future destination in the world, should be obliged to follow one particular line of study, beginning and ending in the principles of one science. I have often wished that some of those able men who support this view of things, in relation to the materials of public instruction, would point out wherein consists the connection between the higher parts of geometry, and the study of ethics, politics, law, jurisprudence, theology, and the fine arts,—the sciences, so to call them, of business, of human life, and of manners. We certainly do not find that philosophers, divines, legislators, orators, or men of business, are particularly distinguished by their acquisitions in this science; and we seldom hear them, when they refer to their education and acquired knowledge, ascribe their success to geometrical skill, or to a minute acquaintance with algebraical analysis. It is, on the contrary, to studies of a more general tendency, to language, history, eloquence, morals, and law, that they are usually found to attribute whatever art may have added to nature, in the strength of their talents or in the command of their resources.

It is no sufficient answer to these remarks that,

when young persons have once been accustomed to reason closely, on mathematical subjects, this improved habit may be transferred to subjects of every other description. Such transferences are not so easily made as seems to be imagined. On the contrary, when men have been accustomed to exercise the reasoning powers on any particular class of objects, there arises an inclination and an aptitude to employ them in that way and not in any other. This is a fact fully confirmed by experience.

The same views which have been here given of the study of geometry, as unfit for the business of a first class of philosophy, seem to have been entertained by Warburton—a name of no mean authority on such a subject. In his introduction to JULIAN he thus expresses himself. “But the truth is, all its use seems to be only habituating the mind to think long and closely, and it would be well if this advantage made amends for some inconveniences inseparable from its study. It may seem too much a paradox to say, that long habit in this science incapacitates the mind for reasoning at large, and especially in the search of moral truth. And yet I believe nothing is more certain. The object of geometry is demonstration. Its subject admits of it, and it is almost the only subject that doth. In this science, whatever is not demonstration goes for nothing, or is at least below the sublime inquirer’s regard. Probability, through its almost infinite degrees, from simple doubt up to absolute certainty, is the *terra incognita*

of the geometer; and yet, here it is that the great business of the human mind, the search and discovery of all the important truths which concern us as reasonable beings is carried on. And here too it is that all its vigour is exerted, for, to proportion the assent to the probability, accompanying every varying degree of moral evidence, requires the most enlarged and sovereign exercise of reason."*

The objections which have been here urged against the use of geometry, as a general introduction to philosophical study, appear to me as being, in some respects, even still stronger, when applied to natural philosophy, properly so called. Indeed the student must necessarily have made considerable progress in geometry before he can enter upon the study of phy-

* Upon this subject I may refer to a female authority (Madame de Stael Holstein) who has considered this point at some length, and very ingeniously, in that part of her work *De L'Allemagne*, which treats of the mode of education in the German universities. "Rien n'est moins applicable à la vie qu'un raisonnement mathématique. Une proposition en fait de chiffres est décidément fautive ou vraie; sous tous les autres rapports le vrai se mêle avec le faux d'une telle manière que souvent l'instinct peu seul nous décider entre les motifs divers quelquefois aussi puissants d'un côté que de l'autre. L'étude des mathématiques habituant à la certitude irrite contre toutes les opinions opposées à la nôtre; tandis que ce qu'il y a de plus important pour la conduite de ce monde, c'est d'apprendre les autres, c'est à dire de concevoir tout ce qui les porte à penser et à sentir autrement que nous. Les mathématiques induisent à ne tenir compte que de ce qui est prouvé; tandis que les vérités primitives, celles que le sentiment et le génie saisissent ne sont pas susceptibles de démonstration."—*De L'Allemagne*, Première Partie, Chap. 18.

sics; the problems of the latter requiring an intimate acquaintance with the principles and conclusions of the former. The token of admission to a celebrated school of natural philosophy was expressed in these words, οὐδεις ἀγεομνηστῆτος εἰσίστω, and it is only a very superficial course of natural philosophy which can be understood by those who have not made considerable advances in geometry.

Nor do the reasons which are commonly assigned for beginning with natural philosophy appear to me well founded, either in the distribution and connections of science, or in the knowledge of the mental faculties of the human being. It is said, for example, to be an easy and attractive study, and thus well calculated to draw on the young and inattentive, by progressive steps, to investigations of a more severe description. But it must be observed, that at the time of life to which the student in a philosophy class is already advanced, this species of stratagem cannot be practised, either with advantage or with success. Children, indeed, who are incapable of feeling the force of other motives, may be bribed by some such means, to undertake disagreeable labour; but students approaching to the maturity of reason are not to be cajoled in any such a manner. On the contrary, they must be treated like men, and taught to act from reasonable motives, from a conviction of duty, and from the prospect of future good.

In truth, the very circumstance, that the subject is

easy and attractive, constitutes of itself, at this period of study, a strong objection to its admission into the first place of the academical course. It is not what is simple, easy, and attractive, which ought to be selected by the teacher to employ the mind of his pupil; so far from this, a judicious master will see the propriety of placing before him, at this stage of his progress, subjects which demand considerable thought and perseverance; no longer concealing from the youth, that the acquisition of knowledge, and of intellectual habits, requires a frequent and strenuous exercise of the intellectual powers. Knowledge, indeed, at the commencement of a philosophical course, is not the main object of exertion; and, accordingly, supposing that the whole facts which constitute physical science, could be communicated at once by inspiration, the grand aim of every sensible teacher, namely, the improvement of the mental faculties, and the ready use of them in the search or illustration of truth, would completely fail to be realized. I repeat that vigour of intellect, an active imagination, and a correct judgment can be acquired in no other way than by constant and regular exercise; and, therefore, to imagine, that young persons may be flattered into the acquisition of such habits, without sedulous and continued labour, is not only to deceive ourselves, but grievously to mislead those whom we ought to instruct, and whose exertions we ought to guide. The student should be informed that, at a given point, beyond a certain portion of difficulty and labour, on his part, are placed the most valuable ac-

quisitions, and that to realize these, steady and well directed exertion is a condition as indispensable as is the cultivation of the soil to the production of a crop.

But it is another great objection to the introduction of natural philosophy, as the subject of study, into the first class of the philosophical course; that this science, like geometry, has no connexion with those of mind,—with logic, ethics, politics, jurisprudence, theology, and the fine arts. Now, besides the direct effects which would be produced by an undivided attention to material objects, in abstracting the mind from the knowledge of itself, it ought to be remembered, that all the previous education of the juvenile student, has had the same tendency, although perhaps in a less direct manner, and has confined his notions almost entirely to things without. This habit, accordingly, is in most cases powerful and confirmed, before the mind is invited, at the commencement of the philosophical course, to attend to her own operations, and to record the objects of her consciousness; and it is, on this very account, more essentially requisite that a new habit should now be generated, and the mind invested with the important office of turning her powers inward upon herself. If this period shall be allowed to pass without beginning the study of pneumatology, the intellectual habits will, in all probability, never be duly balanced; mental operations will pass unheeded, and imperfectly understood; the wonderful mechanism of mind

will remain unanalysed; the origin of ideas, and the history of human thought, will never be inquired into; and men would then use the noble gift of reason, without knowing of what subordinate faculties it is composed, the laws of its operations, or the means of its improvement.

This being the case, it really becomes a matter of serious importance to introduce, in the outset of the philosophical course, such exercises as naturally lead the student to the knowledge of the intellectual instrument, with which all science is to be attained, the understanding enlightened and invigorated, and the sentiments of the heart elevated and refined. The expediency of such discipline becomes, perhaps, only the more unquestionable that natural philosophy carries with it, in its sublime views and exhilarating pursuits, a species of seducement which withdraws the mind from examining into its own operations. The processes of attention and reflection, when directed to mental objects, are not, in themselves, considered agreeable, until such habits have become in some degree confirmed. The first efforts in this way are usually sustained, either by the pressure of necessity, or by the powerful motives of emulation and ambition. Pneumatology does not present many attractions to the youthful mind; and yet nothing is more indisputable, than that the intellectual character, in after life, depends almost entirely upon the exertions which are made, at the commencement of the philosophical course, to acquire command over

the mental functions, to know their reciprocal influence and dependencies, and, thus, to secure the means of correcting their aberrations, and of adding vigour to their exercise. Nor is this happy result, in my opinion, to be obtained in any other way than by following out a system of discipline similar to that already sketched out, and which will be farther explained, in the second part of these outlines.

On this subject, I may venture to speak from experience. Many cases have fallen within my observation of young persons who, on one account or other, began their academical course with the study of natural philosophy; but I do not recollect one of those, who, at any subsequent period, directed his attention to the philosophy of mind, or who afterwards became distinguished in any of the sciences which have their foundation in the knowledge of its faculties. A transition from the study of mental objects to those of a sensible material nature, does not seem to be attended with the same difficulty: and, upon the whole, the opinion of Dr. Johnson, expressed in his usual emphatic manner, accords so much with that which has been here adopted, that I shall conclude with stating it. "The truth is," says he, in his *Life of Milton*, "that the knowledge of external nature, and the sciences which that knowledge requires or includes, are not the great or the frequent business of the human mind. Whether we provide for action or conversation, whether we wish to be

useful or pleasing, the first requisite is the religious and moral knowledge of right and wrong; the next is an acquaintance with the history of mankind, and with those examples which may be said to embody truth, and to prove by events the reasonableness of opinions. Prudence and justice are virtues and excellences of all times and of all places; we are perpetually moralists, but we are geometricians only by chance. Our intercourse with intellectual nature is necessary; our speculations upon matter are voluntary, and at leisure. Physiological learning is of such rare emergence, that one man may know another half his life without being able to estimate his skill in hydrostatics or astronomy; but his moral or prudential character immediately appears."

Such, then, are the views with which the subjects are selected, which afford materials for the lectures delivered in the logic class, in this university; and I hope it will appear, upon a survey of the whole plan, that the attention of the students, during the six or seven months which compose the session, is occupied in such a manner as to promote their intellectual improvement. The ruling principle of the system is to accommodate the subject-matter of the lectures to the capacity and actual progress of those to whom they are addressed, to awaken a desire for information, and to keep alive their interest in the several discussions and inquiries which happen to be brought before them. The knowledge, too, which is there communicated, is drawn from the elements of those

sciences which are to be prosecuted by the student in the succeeding stages of his academical career, and is such as may at the same time be supposed to promote the equal and gradual culture of all the mental powers.

ON THE COMPOSITION OF LECTURES FOR A
FIRST CLASS OF PHILOSOPHY.

THE suitableness of the materials which form the ground-work of lectures is, no doubt, a consideration of primary importance; but it is not the only requisite which must be attended to, in composing discourses for the instruction of students just entering the threshold of philosophy.

When the sole end in view is the communication of knowledge, the natural connection of the subjects to be explained will, in all probability, dictate to the teacher the order which ought to be pursued, and, at the same time, deprive him of any alternative as to the succession of his different topics. But in the case under consideration, as the subjects are chosen with a reference to the improvement of the student in the use of his intellectual faculties, rather than with the view of putting him in possession of any class of facts, the method of instruction ought to be calculated to meet the natural growth of the understanding, and to follow the order in which the several powers of mind are generally found to develop themselves.

Whatever, therefore, may have been the order in which the teacher acquired his own knowledge, he must arrange it, when he delivers it to his students,

in such a manner as best accords with the natural procedure of those powers of mind which he wishes to address, and with the generation of those habits, which he proposes to encourage. The subject, too, must be regarded as new to the pupil, or as very imperfectly understood; and those parts, accordingly, which are the simplest and the most easily conceived, ought to be first presented to his mind, to be followed up by such as are more complex or profound. The tree of knowledge, like the natural tree, has its root, its stem, and its branches; and as the mind observes these connections in forming a notion of the one, so may this analogy be attended to, in guiding its conceptions of the other.

Again, it is obvious, that knowledge of an abstract nature cannot be successfully communicated without a previous acquaintance with the particular facts upon which such knowledge is founded. As the bodily eye comprehends individual objects only, and attains not to the knowledge of complicated substances but by means of a reflex process, originating in the mind; so the intellectual eye follows a similar order in perceiving the various parts of a complex subject, commencing with separate facts, and ascending by regular steps to the comprehension of the whole. Hence, it is fruitless in the extreme for him who composes lectures, to be delivered to young persons in a first class of philosophy, to enter into a detail of theories and systems, and to give criticisms on their leading principles, while no means have been used to make

them acquainted with the basis on which these principles rest. There may, indeed, in such a class, be a few individuals of riper age, or of superior talents, able to accompany the lecturer in his more profound speculations; but the greater number must be left behind to grope their way in the dark, "deserted in their utmost need," by him who ought to have conducted them.

Familiar with the subject himself, and having ceased to remember the exact order in which he acquired his knowledge of it, the teacher, unless he keep constantly in his eye the circumstances of those for whom he is composing his lectures, is very apt to pass over certain steps in the train of thought, which are absolutely essential to the proper understanding of his argument. To guard against this oversight, he should imitate the example of mathematicians, as far as the different nature of the subjects will permit, and by proceeding through a succession of positions clearly and closely related, maintain an unbroken connection, from the first presentment of the doctrine to its full and complete exposition.

One advantage attending the subjects which are introduced in these lectures, is the facility with which they may be moulded to suit the acquirements and capacities of the students at large, and to further the general purposes of their education. The professor, therefore, regarding his pupils as having yet to learn, not only the branches of science which he undertakes

to teach, but even to think and arrange their ideas on every other subject, must in constructing his discourses, have respect to their ignorance rather than to his own knowledge. His lessons ought to be measured not by what he can give, but by what they can receive; and reflecting that his pupils come before him to learn what is useful, and not to admire what is ingenious, he must submit to sacrifice his pretensions to elegance, and his talent for research, and be contented to teach plain things in a plain way.

In the circumstances now imagined as they respect the pupil, nothing can have a happier effect than to render the lectures a sort of appeal to his actual knowledge and experience, whatever may be their extent. The principal subjects of the course, in many views of them at least, admit of a direct application to the student's own mind, and to the intellectual processes which are there constantly going forward. In the explanation of the mental powers, for example, with their offices and operations, he is supplied with an opportunity of comparing the account given in the lectures with the actual workings of sensation, memory, and judgment, as reflected by his own consciousness. In a similar manner, the description of the powers of taste, with the various modes and degrees of sensibility connected with the beautiful, the grand, and the new, in nature or in art, admits of a reference to the daily experience of the diligent student. In general, indeed, whatever the subjects may be which are explained in the lecture, they ought to

be handled in such a way as to exercise the industry, the reflection, and the judgment of the pupil—these being the instruments of all his future acquisitions.

This method of procedure naturally leads not only to a form of lectures well calculated for the communication of knowledge, but also to a peculiarity in the mode of composition and delivery, adapted to excite the interest and to conciliate the affection of the students. Discourses addressed to very young men ought to be formed on the model of conversation rather than on that of a regular philosophical demonstration, or of a rhetorical harangue. In his divisions and subdivisions, too, the lecturer may proceed a little farther than would be altogether justified by strict logical principles, or necessary in preparing his work for the eye of the public; regulating the number of his heads, and arranging his leading topics, with the view of aiding the comprehension of his pupils, rather than of defining the exact limits which separate them from each other. Good divisions afford great assistance to the memory of a student, who hears a lecture only once, and has no other means of aiding his recollection. Such lectures, moreover, should abound with illustrations. Wherever there is the smallest obscurity, or the slightest chance of not being understood, care should be taken to make use of such comparisons and similitudes as throw in light and direct the reasoning faculty. Even where there is no particular obscurity, the mind is sometimes relieved by

means of illustrations, from severe exertion and intensity of thought.

The peculiarity of address alluded to, which will naturally suggest itself to the teacher whose chief object is to be understood, may be exemplified in a great variety of ways, and, among others, by throwing the matter connected with the more important topics of his lectures into the form of questions. When a difficulty is stated, or a solution is wanted—or, indeed, whenever the nature of the discussion leads to or justifies it—the professor will find some advantage in putting a leading question to the students, stopping a short time to give them leisure to think, and as if he expected some one of them to return an answer. In such circumstances, the more attentive and ambitious among the young men, consider the question as put to each of them individually, cast about in their minds for an answer, view the subject in all its bearings, and silently settle with themselves what should be the reply. On some occasions, I have even put it in the power of the students to stand up in their place and pronounce their opinions on the point under consideration; and many of the answers given on such emergencies have displayed much ingenuity and readiness of judgment. This experiment, however, requires great caution and delicacy. Failure in such a case, arising from a trifling or ridiculous answer, would not only defeat the immediate object of the teacher; but would, in other respects, tend to repress a becoming emulation, and

create such a fear of contempt as might deter modest youths from less hazardous enterprises. There can be no doubt, however, that the activity and vigilance, which appeals of that kind produce, are highly favourable to mental improvement and progress in study; and a professor who has gained the confidence and esteem of his class incurs but a very small risk in occasionally repeating them.

The silence and composure of the students, at such times, are very impressive, and prove that the trial of skill and promptitude devised by their instructor does not fail to awaken a deep interest. Even when no answers are given, the practice is not altogether without advantage, for a comparison is instantly made by the diligent student of the explanation delivered from the chair with the reply which he was prepared to make. If, indeed, a successful appearance is made by one or more of the young men, the effect is both great and permanent, tending powerfully to rouse emulation and to confirm industrious habits.

I remember well the striking effect produced on the minds of his students, by an instance of great simplicity and candour, on the part of the late venerable Dr. Reid, when he was professor of moral philosophy in this university. During the hour of examination they were reading to him a portion of Cicero de Finibus; when at one of those mutilated and involved passages which occasionally occur in that work, the student who was reading stopped, and was unable

to proceed. The doctor attempted to explain the difficulty; but the meaning of the sentence did not immediately present itself. Instead, however, of slurring it over, as many would have done, "Gentlemen," said he, "I thought I had the meaning of this passage, but it has escaped me; I shall therefore be obliged to any one of you who will translate it." A student thereupon instantly stood up in his place, and translated it to the doctor's satisfaction. He politely thanked him for it; and farther commended the young man for his spirited attempt. This incident had a powerful effect upon the minds of the other students, while all admired the candour of that eminent professor; nor was there a single difficult passage which was not afterwards studied with more than usual care, that the next precious opportunity for distinction might be seized. Powerful, indeed, and lasting are the impressions which such incidents make on the minds of ingenuous youth. They contribute more to encourage industry and sustain resolution, than formal precept or even affectionate remonstrance. Opportunities of producing such impressions, therefore, ought never to be neglected.

In studying to be useful as a public teacher, the professor of such a class must extend his system of accommodation even to the language and style of his lectures. The phraseology of science, and the technical terms which must be employed in the very introduction to philosophical study, are necessarily in a great measure new to the stu-

dents. It cannot, accordingly, fail to puzzle a juvenile beginner to have to struggle at once with an abstraction in the thought, and with an obscurity in the language. The professor, accordingly, should adopt, particularly at first, a plain, perspicuous, and even familiar mode of expression. Indeed, the form of lectures here recommended naturally leads to these qualities of style, and encourages that looseness in the structure, and colloquial ease in the manner, which characterize extemporaneous instruction. Sentences rigidly measured, and periods nicely balanced, are apt to bind up the meaning; at all events, they answer much better to be read than to be heard.

Teachers of philosophy, generally speaking, address their pupils from written lectures or very copious notes. Experience, however, has convinced me, that a constant and slavish reading ought of all things to be avoided; and that a mode of delivery should be attempted, more or less approaching to extemporaneous speaking. There are no doubt many details, in a course of lectures, which may be read with advantage; but upon the more important and interesting parts of his subject, the professor should speak to his students from clear and just views of the matter in hand, and from the deep impression made on his own mind. The constant reader of written lectures is, in the eye of youth, a sort of mechanical performer; and can seldom avoid becoming tiresome and monotonous in his delivery. How well soever he may read, he cannot give the proper advantage to

the matter of his lectures, nor acquire that influence over the minds of his pupils which is placed within his reach. The frame of mind, too, in which the lectures may have been composed, the warmth and earnestness which may have been felt in the first train of thought, are usually found to evaporate in the formal reading of them, when that train is no longer kept up in the memory, so as to warm the imagination. The extempore method, also, brings the mind of the speaker into closer contact with that of the hearer; accommodates itself more easily to the wants of the latter; enables the teacher to repeat what has not been fully conceived, to change the mode of illustration, to relieve the attention, to excite the curiosity, and to direct, anticipate, and assist the students in a great variety of ways, which are in vain to be expected from the reader of a written lecture.

The practice of reading has another bad effect, in as much as it precludes, almost entirely, the intercourse of looks and feeling which should subsist between the professor and his students, during the delivery of the lecture; for it would make but little difference, provided he were distinctly heard, if the reader were concealed altogether, and pronounced his discourse in a contiguous apartment. When, on the other hand, lectures are delivered extempore, as the expression comes warm from the active thought and animated feelings of the teacher, there is produced in the moment a species of sympathetic influ-

ence between him and his pupils, which it is not easy to describe, but of which the effects are well understood. He, too, who speaks extempore can look around with freedom, and form an estimate not only of the attention which is bestowed, but also of the interest with which the lecture is received. He perceives, from the expression of the countenance and the attitude of the body, whether the mind of the student is caught and carried along by the argument, or whether he is left behind and labouring to keep up with the progress of the discussion. The advantages arising from this intercourse between the mind and the eye, in a numerous class, composed principally of very young men, are neither few nor unimportant. They have been appreciated less or more by all teachers, and turned to a practical use by such as had sufficient skill to mark their tendency.

I have heard, from the celebrated Adam Smith, who was long professor of moral philosophy in this university, that almost every session there were some of his students, from whose countenances and general behaviour he was enabled to judge whether his lectures were fully understood. There was an intelligent and composed posture of the body which he could easily distinguish from that which denoted a doubtful or unsatisfied state of mind. "One session," said he, "I observed an intelligent student who generally sat in the same place, with his back to the wall. When he perfectly understood the lecture,

he sat with his body bending forwards, in the attitude of animated attention; but whenever he found me above his level, he threw his body back to the wall, and continued in a careless posture. That was a signal to me. I instantly retreated, took up the subject in another form; and never ceased my efforts till my marksman bent forward, and was restored to his attentive position. Then we went on harmoniously together."

It must be admitted, that teachers may possess great talents and extensive knowledge, and yet be deficient in the habit of extemporaneous delivery. But as there are few qualifications more necessary for the proper discharge of their duty, this is an acquirement which young professors should spare no pains to secure; and, in fact, those who are greatly deficient in that popular talent, however respectable their literary attainments may be, are, on that very account, disqualified for such public teaching. Respectability of character, reputation for other talents, and for acquisitions in science or literature, and the hope of improvement in professional habits, are sometimes found to recommend candidates to situations in schools and colleges, who, as far as the practice of teaching is considered, possess neither experience nor the requisite natural endowments. And when once invested with the appointment, the facility with which the duties of it may be discharged, without attracting either notice or censure, and the total absence of local competition, too frequently

induce the incumbent to rest satisfied with his original manner, and to regard every change as useless and unnecessary.

The possession even of professional knowledge, and the art of communicating it successfully to others, are two very different things; though the former, as has just been remarked, is often held as an apology for the want of the latter, or even as superseding the necessity of such a qualification. The professional art, however, so to call it, comprehending that of managing a numerous class of young persons, requires an assemblage of qualities which are not always found united. An ardent and diligent search for the particular knowledge required—the arrangement and adaptation of it to the purposes of those to whom it is to be communicated—the kind, prudent, and discreet management of different characters—the wise administration of discipline—firmness and self-possession in bestowing praise and in inflicting censure—readiness to meet unexpected demands for information—the removing of obstacles, and the solving of difficulties—are all, in their turn, required of the teacher of philosophy.

I have reserved for the conclusion of this sketch the mention of a duty which ought to enter into every plan of education. In the English universities the students are required to attend prayers twice every day, exclusive of prayers on particular occasions. The presbyterian form of worship necessarily

occasions some difference in the mode of performing this religious service; but in this university the public lectures are every morning preceded by a short appropriate prayer, containing such devout and interesting sentiments as seem best suited to compose the minds of youth, and to prepare them for the business of the day, by impressing them with the constant presence of that Being to whom they are responsible for all their advantages and means of improvement. The professor himself must not be in a right frame of mind, if the presence of so many young persons depending upon him for those instructions on which their future character and happiness so intimately depend, does not suggest suitable materials for the devotional exercise of each successive morning.

PART II.

INTRODUCTION.

IN the former part of these Outlines, it has been my object to explain the office and operation of the intellectual powers, including the powers of taste; to unfold the means by which these endowments of the mind are most likely to be improved; and to communicate, at the same time, such a degree of general knowledge as seems necessary to afford scope for their suitable exercise.

The great end of philosophical education, however, is not to be attained by a mere theoretical acquaintance with the mental faculties, as explained in lectures, or even by the ablest writers in this department of knowledge. It consists rather in improved habits of directing their several energies; in thinking correctly, in reasoning closely, and in the acquired facility of conducting the various processes of generalization, invention, and communication, by speech or

by writing. A well educated man, accordingly, is not merely distinguished by his knowledge of particular theories, as to the arrangement and distribution of the powers of the mind, but by the command which he has acquired of his faculties, so as to apply them, as occasion may require, in the prosecution of science, of art, or of business. "It has been unfortunately forgotten," says Dr. Barrow, "that communication of truth is only one-half of the business of education, and is not even the most important half. The most important part is the habit of employing to some good purpose the acquisitions of memory, by the exercise of the understanding about them, and till this be acquired the acquisition will not be found of much use."

To the same effect is the opinion of Mr. Locke in his *Essay on the Conduct of the Human Understanding*. "Nobody has made any thing by the hearing of rules or laying them up in his memory; practice must settle the habit of doing without reflecting on the rule; and you may as well expect to make a good painter or musician extempore, by a lecture or instruction in the arts of music and painting, as a coherent thinker or strict reasoner, by a set of rules showing him wherein right reason consists." And in another part of the same essay: "The faculties of the soul are improved and made useful to us, just after the same manner as our bodies are. Would you have a man write, or paint, or dance well, or perform any other mechanical operation dexterously

and with ease; let him have ever so much vigour and activity, suppleness and address, yet nobody expects this from him, unless he has been used to it, and has employed time and pains in fashioning and forming his hand or other parts to these motions. Just so it is in the mind. Would you have a man reason well, you must use him to it betimes, exercise his mind in it, observing the connexion of ideas and following them in train."

The unfortunate practice, pursued in some seminaries, of attempting to teach philosophy by the sole means of public discourses or prelections, without any regular exertion on the part of the students, either to acquire intellectual habits, or to understand thoroughly what is pronounced in their hearing, is certainly a modern innovation. We have no exact account, indeed, of ancient systems of education; but, from the doctrines taught in the principal schools of philosophy, there can be no doubt that regular and vigorous exertion by those who were taught formed an essential branch of the discipline enforced by the masters. Xenophon informs us, that the Persian system of training youth consisted in a course of stated and emulous exertion; by which they acquired not only the utmost dexterity in bodily exercises, but also strength, promptitude, and decision in the use of their mental powers. Even the seven years of silence which Pythagoras is said to have imposed upon his disciples, was meant, it is probable, to prove subservient to the formation of industrious habits and

vigorous exertion; while the prohibition extended only to the communication of their secret doctrines to the exoterics, and not to conversation or rational intercourse with one another.

If again we turn to the doctrines of the stoical philosophy, we shall perceive that they were very little calculated to favour ease or indulgence, in the course of education. Aristotle, the great lawgiver of science, considered the whole of philosophy viewed in relation to the student, as consisting of habits, moral and intellectual, acquired by means of a regular process of mental discipline. Quintilian, in like manner, the most distinguished instructor of youth among the Romans, from whose *Institutions* more information may be derived relative to the conduct of education than from any other ancient author, made it a part of his system to prescribe to his pupils a series of exercises and themes; of which he has handed down to us several of the principal topics. His declamations may be regarded as examples of the labour and diligence which were required on the part of the young Roman barrister. Nay, what is more, even during the middle ages of false learning and of superstition, when the proper objects of a liberal education were but ill understood, the prelections of the teacher in every public seminary were accompanied with regular exercises in reasoning and disputation; which mode of training and exhibiting the intellectual energies was continued, until very recent times, in this university.

The facts now stated may be considered as a sufficient proof that the wisest and most learned men, whether in remote antiquity or in ages bordering upon our own, did not hold mere lectures as competent means of education viewed in its proper light; but that, on the contrary, they regarded these as altogether inadequate to answer the purposes of academical discipline, without the accompaniment of a certain degree of practice, in all the arts to which the attention of the student is directed. It was reserved for the times in which we live to make the singular discovery, that philosophy may be taught to any number of young persons, and intellectual habits formed in their minds, by the simple act of pronouncing a lecture from a professorial chair. Agreeably to this view of things, no exertion is demanded on the part of the student; and no exercises are enjoined, by which he might be led to arrange the knowledge communicated to him; to discover the connexion of its various parts; to compare opinions, principles, theories, and thus at once to make that knowledge completely his own, by improving the faculties of his understanding.

It appears indeed surprising that men of ability and experience, employed in conducting education, should imagine that young persons, from fifteen to eighteen years of age, could possibly acquire habits of intellectual energy, by the mere passive operation of listening to lectures, however learned or ingenious. With persons of more mature age, who have a deep

and immediate interest in the subjects discussed, the case may be different. Such individuals naturally exert attention in the presence of the professor, and may, besides, be able to form for themselves a course of practical discipline, and to follow out a regular plan of reading and composing, without his assistance or direction. But this cannot reasonably be expected from the greater number of those who attend lectures in a first class of philosophy; as it would imply the prudence and steadiness of age where we must lay our account with the giddiness and inconstancy of youth. Every system of academical instruction, therefore, which leaves it optional to the students whether they shall second the exertions of the teacher by private application and stated labour, is founded on a principle radically erroneous.

It is unquestionably true, that able men and good scholars come forth from seminaries, where the plan of instruction is faulty in a high degree; but able men and good scholars are found among those who have not had the benefit of a regular education at all; and a few instances of success, in the case of young men whose disposition to receive and apply instruction may have been peculiarly favourable, do not by any means prove that the system is well calculated for the great mass of juvenile students, whose education it is intended to regulate. Nor can it fail to be surprising, that a teacher of philosophy should conceive, either that there is nothing more in his power, or that his duty requires of him to do nothing

more, than to compose ingenious lectures, to read them at stated hours to his students, and to leave the application wholly to their own prudence or love of learning. What farther may be done, and indeed ought to be done, by each of them respectively, will be explained in the sequel.

As the system of practical discipline established in this class, has its foundation in the lectures delivered to the students, on the elements of the different branches of science already specified, it is essentially requisite, in the first instance, that these lectures be clearly comprehended, both in principle and in detail; for it is very obvious that, amid obscure conception of the subjects, or imperfect recollection of the illustrations, young men cannot derive any advantage from the prelections to which they listen, nor can the teacher supply himself with the means of calling into action their mental endowments. When the professor, then, has done all in his power by a suitable selection of his subjects, by simplicity of arrangement, and perspicuity of style, to render his lectures acceptable and useful to his pupils, he has every reason to expect that they will be disposed to attend to them with composure and earnestness. This disposition, indeed, with respect to the majority of the students, ought to be taken for granted; and the next step is to put them in the way of availing themselves of the means of knowledge with which they are furnished, so as to secure, or, if I may be

allowed the expression, to realize for themselves as large a share of it as possible.

Various expedients have been suggested for this purpose, among which may be mentioned the art of short-hand writing. With one single advantage, this practice is attended with many objections; for being constantly occupied with the mechanical operation of transferring the words of the lecture into his note-book, the mind of the student receives scarcely any ideas connected with the subject under discussion, and is altogether removed from that active and strenuous exertion of its powers, upon which the formation of all valuable intellectual habits is found chiefly to depend. The voluminous short-hand writer is commonly less acquainted than others with the facts and reasonings which he has committed to paper; and when he leaves college, accordingly, his port-folio, and not his memory, contains the chief part of the instruction which he carries away.

Some students, again, unwilling to distract their attention by taking notes during the delivery of the lecture, keep their minds unremittingly fixed upon the various statements and arguments, as they are successively brought forward; and exercise, as they go along with the professor, a modified kind of recollection and judgment, on the several parts of his discourse. Upon retiring to their apartments, they immediately review the lecture in the order in which the subjects were illustrated; and having, in this

way, formed a clear conception of its general object, as well as of the subserviency of the different portions of the reasoning to the establishment of the main point, they commit to writing, in their own composition, whatever they judge to be of leading importance.

This, no doubt, is the most profitable way of attending a lecture; for it improves the mind both at the moment of delivery, and in the subsequent process of reminiscence and abridgment: but as many students have it not in their power to make such arrangements, with regard to their time, as to render this mode practicable—and, besides, as it implies an exercise of the understanding which few juvenile students are found to possess—the greater number adopt a middle course, and take, each in his own way, contracted notes or memoranda of the principal heads, divisions, and illustrations, trusting to their memory for the recollection of the remainder. The great diversity of talents and habits which subsists even among young persons necessarily suggests different methods of pursuing this object; but that which has just been mentioned, is probably most eligible for those of ordinary memory and capacity.

These hints may appear trifling to such as have not attended to this subject; but all who are experimentally acquainted with the difficulties and embarrassments of students, when entering upon the study of philosophy, must admit the importance even of the most minute observations, which may tend to smooth their way, or to throw light upon their path.

ON PUBLIC EXAMINATIONS.

ACCORDING to the statutes and practice of this university, the professors of philosophy, in addition to their morning lecture, are required to convene their respective students at an early hour, in the forenoon, for the purpose of examining them on the subjects discussed in the lecture, and of prescribing written exercises, on topics more or less connected with these subjects. The increased number of students, in the logic class of late years, has occasioned a corresponding increase in this department of the professor's duty; and has induced him to devote the greater part of an additional hour every day, with the view of discharging it more fully to his own satisfaction, and agreeably to the spirit of the system according to which the general plan of education is regulated, so that while one hour is employed in lecturing, two hours are each day devoted to examinations and exercises.

The students, accordingly, always listen to the lectures, under the impression that they are to be subjected to a strict examination on every thing which is laid before them—on the general division of the matter, the arrangement of its several parts, the connexion and development of the principal arguments, and the analogies, proofs, and facts which are employed to illustrate or confirm them:—and, as

these topics are afterwards to be wrought up into essays, and produced by every individual student, clothed in his own language, such a revisal in the way of examination, seems absolutely necessary to supply materials, as well as to assist the judgment. In truth, it is not to be expected that a mere single hearing of the lecture, when formally pronounced from the chair, will prove sufficient to furnish the young student with facts and reasonings, on which to exercise his talents, for thinking or writing; and, it is from this conviction, that the practical business of teaching, so to call it, in this university, is made to embrace a regular plan of examination, as the basis of all the other exercises which are enjoined in the several classes.

In conducting this examination, the questions put to the students are not of that description which necessarily suggest their answers, nor such as may be answered categorically without being attended with any certain proof that they are well understood. An examination of this sort is of very little use. On the contrary, the questions addressed to the young men are expressly calculated to bring from them the knowledge they have acquired by the lecture, expressed in their own manner, and thus to discover the degree of attention they have bestowed. The experience, and even the abilities of the teacher, may be easily perceived by his method of conducting an examination. *Prudens interrogatio dimidium est scientiæ.* Among so many young persons of different ages, ca-

pacities, and habits, the same questions cannot be put indiscriminately, and with equal advantage to all; for, while there are some who find no difficulty in comprehending the object of an interrogation, and in giving a suitable answer, there are many who, from inattention, defect of memory, or want of intellect, require that the form of the question should be varied, and even that hints should be supplied to aid their recollection. In such cases, the skill of the examiner is put to the test, in accommodating his queries to the capacity of the student, in giving courage to the diffident, in removing perplexity, and in suggesting to all the use of their resources.

To give additional exercise to minds that are more advanced, questions are occasionally put which cannot be answered without entering into an enumeration of particulars, on which general doctrines or first truths are founded; or into a detail of proofs and arguments by which propositions on certain points have been established or overthrown. On one day of the week the examination is made to turn, not on the lectures which have been delivered immediately before, but on a part of the course already concluded, respecting which the student can only be supposed to retain the general statements and reasonings. To assist the mind farther in the processes of abstraction and generalization, questions are occasionally asked which require to be answered by giving a summary of several lectures, or even by repeating an outline of the divisions and subdivisions of a certain portion of

the course. By this means, too, the students are induced, while they are expected to give distinct answers on the topics handled in separate lectures, to keep in view the connexion which subsists between one lecture and another, and among the several parts of the general subject.

The manner of putting questions likewise demands the attention of the professor. There are many students who, though they possess sufficient information to answer the questions addressed to them, cannot overcome the embarrassment into which they are thrown by their natural timidity; and young persons of this character, it is very clear, may be suddenly checked, by an abrupt or impatient manner, on the part of the teacher. To discharge this duty well, therefore, the professor must proceed with kindness and affability; and often satisfy himself with gathering an answer from an imperfect expression, rather than increase the embarrassment of the student by recurring peremptorily to the question. Sometimes, too, he will find reason to blame himself for putting questions which ought to have been preceded by others of a simpler nature: and, on other occasions, he may find it necessary to depart from the order of the lectures, and to adopt another method of explanation more suited to the talent and progress of the individual. In all these cases, the object of the teacher is the same—to carry the student gradually forward through the intermediate steps of the argument, till he come to the point under considera-

tion, and ultimately to the conclusion in subservience to which the argument was constructed.

The advantage derived from such regular daily examinations are too obvious to require illustration. The responsibility to which the students are thereby subjected, and the constant demands which are made upon their attention, have a most powerful effect in exciting activity, and in training the mind to precision, in its various operations. Besides, the practice now mentioned presents many opportunities to the teacher of illustrating the more difficult parts of his lectures with greater effect, than he possibly could command in a formal discourse. Discovering, also, from the answers received, the particular obstacles which impede the progress of the student, the point where his comprehension fails, and where mistake succeeds, the professor is enabled to accommodate his instructions to the particular circumstances of each individual, and to put all in the way of understanding the subject with greater distinctness and accuracy. Animated by the interest which his pupils manifest in this mode of tuition, he will occasionally find his powers of communication and address raised above their ordinary level, so as to make a deeper impression on their youthful minds, and will, in such moments, naturally lead their imaginations from present scenes of labour and difficulty, to future views of honour, usefulness, and distinction, in which they may hope one day to participate; and thus effect what can seldom be accomplished by a regular lec-

ture, or a formal admonition. In such circumstances, also, he may frequently seize a favourable opportunity for rousing the indolent, for encouraging the diffident, for directing the spirit of the adventurous, and for bringing down the pretensions of the petulant and the assuming. In truth, it is impossible to enumerate the happy effects of such unreserved, affectionate communications on the minds of ingenuous youth.

It may be farther remarked, that this method of conducting the examination in a first class of philosophy, is essentially necessary to qualify the professor himself for the successful discharge of his duty. If teaching be an art, and one too of the most difficult kind, expertness can be acquired in no other way than by practice and observation. How eminent soever the abilities of a professor, he is not thereby qualified even to prepare a course of lectures suited to the various capacities and acquirements of his pupils. Destitute of experience, as a practical instructor, he might, indeed, after the example of Rousseau, frame an imaginary scheme of education, but this, like the system of that eloquent writer, would prove completely inapplicable to the purposes of ordinary life.

We may condemn or ridicule, as much as we please, the scholastic mode of education pursued by our forefathers; but there certainly never was a wilder scheme devised by the ingenuity of man, than that of at-

tempting to create intellectual habits by the sole means of reading a lecture, without any farther intercourse between the teacher and pupil. However useless the subjects on which it was employed by the ancient method of instruction, a high degree of acuteness and discrimination was produced in the mind of the student; whereas the mere lecturing professor does nothing, and can expect nothing, but what may happen to result from the voluntary efforts of the student himself, and a great number of young men who give their personal presence with all becoming decency at the delivery of such lectures, may please themselves with the idea that they are doing something, while in fact they are doing nothing in the way of real improvement;—but on the contrary are often unfitting themselves for intellectual exertion, by acquiring habits of listless inattention.

When, indeed, a professor enters upon his office, he must, at first, follow in some degree the example of others, and form the best notion he can of the course of lectures, and general plan of education which he is about to undertake. But lectures, to be really useful, must be founded upon a practical knowledge of the dispositions and habits of youth; and there is no other means by which this knowledge can be so well acquired as by a constant intercourse with the students, in the way of examination. The teacher has thus opportunities every day of observing the effects of his instructions, how far they are comprehended by his pupils, and what may be wanting, on their part or

his own, to clear away doubts and to remove difficulties. He becomes, in a little time, nearly as well acquainted with their minds as with their faces, and can ascertain the precise measure of their progress and advancement.

To secure the attention of the student as well at the lecture as during the examination, the experience of the teacher will not fail to suggest various expedients. For example, he will not examine the class in any stated order, but occasionally call upon the same individual at two successive hours or even twice in one hour; and, as a check upon open negligence, he may sometimes select such as appear the least attentive, and thereby expose their idleness to their fellow students. To prevent carelessness during the lecture, the young men here are informed that at the second hour, every one of them will be called upon to produce an abridgment in writing of all they have heard in the morning—the order, the method, the principal topics, and the illustrations—as far as they can recollect them.

Half an hour is usually devoted to this exercise, during which time the professor is employed in attending to the demeanour of the class, and in watching and remarking the various appearances of attention or of indifference. The other half hour is spent in reading part of the essays which are thus produced: the students being called upon indiscriminately, and without any regard to order or rotation.

This exercise, and the examination on the lecture according to the manner already described, are carried on alternately throughout the session : affording at once the best means of securing the attention of all, and of giving to the more diligent of the young men a favourable opportunity of displaying their proficiency.

Sometimes I endeavour to effect the same object in a different way. I employ a certain number of the students in drawing up such an abridgment of the lecture as I have just described, while the rest are occupied with the examination. This accustoms those who are engaged in writing to the command of their thoughts : and, indeed, I know few better methods for fixing the wandering attention of youth, than by thus making it necessary for them to keep their minds close upon one subject or train of reflection. They thus acquire the power of directing their faculties, of excluding the distracting influence of external objects, and of subjecting the exercise of attention to the guidance of the will.*

* By way of following up this habit, I am in use also to prescribe as an exercise to those of my students who are of the established church and attend public service in the College Chapel—to give an abstract in writing each Monday of the sermon delivered the day before. This they must execute entirely from memory, as they are not allowed to take any written notes at the time. And upon one occasion towards the end of the session, I propose a prize for the best specimen of the recollection of a particular discourse. The essays given in by the candidates are transmitted to the clergyman by whom the sermon was preached, who

In short, it is only by a system of actual exertion on the part of the students, that real improvement can be expected. The most ingenious discourses on the power of attention, and on the means of improving its habits, are altogether useless to the young and the careless, unless you induce them, at the same time, to perform such exercises as necessarily lead to the actual employment of that valuable faculty. What signifies the most elaborate exposition of the rules of judging and reasoning, if the student is not compelled to exercise his judgment and his reason? To what purpose do you explain to him the advantages of promptitude in the use of his mental endowments, if you do not place him in circumstances which render such activity quite indispensable? The qualities of style, too, may be learnedly and perspicuously illustrated, but the labours of the teacher will be of very little value to the majority of his class, unless they be made to compose, and listen to the correction of their errors.

The practice adopted in this class recommends itself to our approbation, chiefly because it combines many active efforts of mind. The students have to remember,—to select and arrange the materials furnished to them, and to express, on the spur of the occasion, their ideas in plain and perspicuous lan-

is requested to adjudge the preference, not to the essay which is best composed, but to that which contains the best account of the sermon in the order in which it was delivered.

guage.—This is done in the presence of their teacher, and in such circumstances as preclude entirely the possibility of extraneous assistance. And upon the whole, I do not know of any part of the active discipline of the class which is attended with more beneficial effects.

ON THEMES.

THE lectures and examinations, of which some account has been here given, are supposed to afford the students such materials as will enable them to take another step in their progress towards intellectual improvement. The powers of mind exercised in hearing and in comprehending lectures, are exerted without much difficulty, because the young men have in some degree been accustomed to such exercises; but the intellectual processes of investigation and reasoning, of composition and communication, on which the pursuits of science and the active business of life chiefly depend, are at first accomplished with great difficulty. In proportion, however, to the frequency and regularity with which these combined operations are performed, a power as well as a disposition to exert them is acquired, resistance and difficulty are removed, and those faculties of which the exercise at first demanded the firmest resolution, are afterwards employed without effort, and apparently without volition. Of this we have complete experience in the acquired habits of dancing, or of performing on a musical instrument—and in the great facility with which the exercises of reading, writing, and arithmetic are practised.

The pride of philosophers has often led them to deviate from the beaten path, merely because com-

mon travellers were found to pursue it. Thus, for more than two thousand years, the logician and moralist overlooked the natural mode of reasoning by induction, because men in every situation of life, and even they themselves in common business, were in use to practise it. Did the teachers of philosophy deign to receive instruction in the principles of education from a common artist, in the simplest occupations of life, they would no longer refuse to combine, with their elementary precepts, a system of progressive exercise, in the art of arranging and expressing thought. The young artist is no sooner made acquainted with a rule, than he is required to act upon it, and to produce specimens of his work for the examination and correction of his master: while, on his part, the master knows well, that nothing can be expected from his instructions, unless they are immediately followed up by earnest endeavours to reduce them to practice.

These general laws of culture extend to the more exalted faculties of mind, as well as to those which regulate the mere bodily habits; while the improvement of the original powers of intellect, and the facility of applying them to practical uses, can, it is equally evident, be secured in no other manner. The teacher of a first class of philosophy must follow this example. He must, from time to time, prescribe subjects for specimens or themes, which his students are required to execute according to the directions given them; and these specimens are, also, in a simi-

lar manner, to be subjected to his correction and amendment; after which, such farther instructions are to be afforded as may be found necessary.

The skill, experience, and prudence, of the teacher are essentially necessary to success in this part of his business. Indeed, this system of practical instruction is much more difficult than the composition of lectures. The specimens required must be as nearly as possible adapted to the actual state of the intellectual powers and previous attainments of the students. The first themes should be such as require less labour and exertion than those which are to succeed them; but even those must require such a degree of exertion as will call into action all the powers of the student, and carry him forward to the next step in his progress to higher attainments. That burden which the labourer, by gradually increasing efforts, may become able to support, would completely overpower him, when he made his first efforts. "He that begins," says Mr. Locke, "with the calf, may carry the ox, but he that will go at first to take up the ox, may so disable himself, as not to be able to lift the calf after that." "When the mind has brought itself to attention and close thinking, it must be able to cope with difficulties, and master them without any prejudice to itself, and then it may go on readily." Still, as the same author justly observes, "Quid valeant humeri, quid ferre recusent," must be made the measure of every man's understanding who has a desire not only to perform well, but to

keep up the vigour of his faculties, and not to baulk his understanding by what is too hard for it. The mind by being engaged in a task beyond its strength, like the body strained by lifting a weight too heavy, has often its force broken, and thereby gets an inaptness, or an aversion to any vigorous attempt ever afterwards." In the same essay he observes, that too easy tasks are equally hurtful. "He that has for some time accustomed himself to take up what easily offers itself at first view, has reason to fear, he shall never reconcile himself to the fatigue of turning and tumbling things in his mind, to discover their more retired and more valuable secrets."

Lord Bacon, from whom every teacher of philosophy may find much to learn, seems to have had precisely the same notion relative to themes and exercises when prescribed to students. The task, says he, must be as exactly as possible accommodated to the capacity and knowledge of the student, and should require neither more nor less than he can give. Too great a burden might depress those who have little courage, and a burden too easy might lead them to place such confidence in their own capacity, as both to repress their ardour, and to obstruct the progress of their studies.

The themes which are presented to the students of a first class of philosophy must not only be adapted to their progress and previous attainments, but must also be prescribed frequently and regularly. No ha-

bit can be acquired, without a frequent and regular repetition of the act to which it bears a reference; for the same number of acts which, when closely following each other generate a habit, would fail to have this effect, if separated by long intervals: and the more difficult the attainment of the habit, the more necessary it is that the endeavours to acquire it should be constant and regular.

The subjects, also, of the themes must be various and numerous. Were the same topics given out every succeeding session, there would be a great risk of idle and negligent students borrowing and copying those of a former year, and even attentive students might occasionally have recourse to such performances to abridge their labour. In this case, themes, like the *strings of syllogisms*, formerly well known in some celebrated seminaries, would become a sort of college property, descending from one generation to another. This pernicious practice, wherever it prevails, defeats the very purpose of prescribing themes, and can only be prevented by introducing variety and alterations in the subjects prescribed.

The difficulty of finding fit subjects is, probably, one cause which has prevented this mode of instruction from becoming a regular part of the business of a first class of philosophy. It seems to have been forgotten that a class of this sort is chiefly intended for the acquisition and formation of intellectual habits.

For this purpose voluntary exercises, to be performed only by such of the students as choose to take the trouble, are comparatively of little use—their benefits being confined to a few only of the students, and those too, probably, who stand least in need of any incentive to improvement. We find, accordingly, that the themes which are required in some of our seminaries from the students of philosophy, are few in number, and not very closely connected with the inquiries pursued in the lectures. It would appear, that teachers have neither duly considered the nature and object of the exercises required, nor the source from which they should be drawn. Young persons entering upon the study of philosophy cannot be supposed to possess a sufficient stock of knowledge for accomplishing at once an essay on an abstract subject. The daily lectures, the examinations, and the books which are recommended to them, must supply materials for the greatest part of their themes; while the extension of the course of lectures to the elements of so many different branches of science, is well adapted for that purpose, and accommodated to the diversity of talents in youth.

The themes first prescribed have a reference to the improvement of those intellectual powers which are first occupied in the acquisition of knowledge, while the others which succeed are intended to be adapted to the natural procedure of those powers, as well as to their dependence on each other. I shall now point out several classes of these themes, the separate ob-

ject of each, and the manner in which the professor corrects them, after they are executed, with a view to the improvement of future efforts, on the part of the students: and I have comprehended these themes under four classes, not with the view of any exact line of demarcation between them—but in relation to those powers of the mind which are intended to be successively called forth into operation.

ON THE FIRST ORDER OF THEMES.

THE object of the first class of exercises is to enable the student to form clearer and more accurate notions of the subjects discussed in the lectures than can be acquired from merely hearing them delivered; and also to accustom him to express his thoughts on these subjects in correct and perspicuous language.

The hearing of lectures, even when accompanied with regular examinations, is not sufficient for both the important ends now mentioned; because that accuracy of conception, as well as of expression, to which the student of logic should endeavour to attain, cannot possibly be acquired, without the deliberate and continued exercise of his own mind, on the topics successively brought before him by the professor. Young students, in all circumstances, are but too much disposed to rest satisfied with superficial knowledge. The irksomeness of labour, the

impatience and fickleness incident to their time of life, the constant desire to pass on to something new, and, above all, the difficulty which they experience in their first attempts to listen, for a whole hour, to a set discourse, not unfrequently prevent them from fully comprehending a train of reasoning, which they have no opportunity of hearing a second time. It is, therefore, an essential part of every good system of education, to lay young persons under the necessity of reviewing the ground over which they have passed; of exerting their memory and judgment on the leading topics of the lectures to which they have listened; and of arranging and expressing their ideas in plain, distinct, and classical language.

Exercises of this kind soon bring to the test the extent and accuracy of the student's knowledge. Upon hearing a lecture, he may be apt to imagine, that his notions on the subject of it are equally clear and connected; he may, in conversation, be able to acquit himself so well as to confirm his own deception, and even to impose upon others; but the moment he attempts to embody his thoughts in writing, he begins to perceive where light forsakes him, and where confusion and darkness prevail; he finds that the boundaries of his knowledge are much narrower than he was willing to believe; and that the chain of thought, which appeared to him perfectly entire, is in many parts weak and defective. By means of these exercises, too, the subjects of study are detained a longer time under the action of the mind. Ex-

pressed in written signs, the smaller portions of thought assume at once clearness and permanency; and are, consequently, more easily combined in a process of reasoning, or applied for illustration and argument, in the defence of a thesis. Spoken words, following one another in quick succession, cannot present to the mind, ideas so distinct and connected as those, which address the intellect through the medium of a well composed essay; and, in this way, the student, by being compelled to exercise his judgment, not less than his recollection, becomes to himself the best of all teachers. The mind is improved by acting upon its own stores; its knowledge is made productive not only of more extensive knowledge, but, what is much more valuable, of increased power, in its several faculties, and of pleasure and ease in their application.

Though there may be some risk of being charged with excessive minuteness in specifying the subjects of these themes, it is necessary, in order to realize my views, in regard to this work, to give a pretty full detail of the plan which I pursue, in this department of my professional duty. The subjects, then, I need hardly observe, are selected from the principal topics of the preceding lectures; and are prescribed, in the course of the session, with due regard to the increasing knowledge and ability of the students. At first a theme is given out almost every day, on which a short essay is to be written in the evening, and read in the class the following day. The subject is often

proposed in the form of a question, the answer to which is understood to afford sufficient materials for the task to be performed.

For instance, the first lecture contains a dissertation on that kind of knowledge which we term philosophy, as distinguished from that which is derived from the senses, from history, or from revelation; and, accordingly, the questions proposed, in reference to this subject, are such as the following: "On what grounds may philosophy be distinguished from other kinds of knowledge?" "In what sense is it a knowledge of causes?" "How is philosophy to be considered as an interpretation of the laws of nature?" "It is required to illustrate, by examples, the difference between the knowledge of a phenomenon and that of its cause."

Every succeeding lecture furnishes matter for similar exercises, of which the following may be given as a specimen: "How is the notion of power acquired; and how is it to be distinguished from that of faculty and operation?" "It is required to explain the grounds of distinction, in the philosophical meaning of these terms—attention, perception, reflection, observation, and consciousness." "In what manner are general and abstract notions formed, and how are they to be distinguished from each other?"

By performing such exercises, the students are at once enabled to embody the knowledge, which they

may have acquired, of the principal subjects of the lectures, and are prepared for those higher and more arduous exertions which they are afterwards called upon to undertake. Themes, of the description mentioned above, are given out, almost daily, during the first two months of the course: that, by the constant practice in composition, to which the young men are thus habituated, they may acquire facility in distributing their thoughts, as well as in expressing them in suitable language. Every student in the class must write, according to the best of his ability and information, on all the subjects prescribed. A certain option is, no doubt, allowed to the youngest boys, to confine their efforts to the more simple topics in the theme; but no one is exempted from the necessity of making an attempt. Every one must do what he can; and as the exercises are read in the hearing of the whole class, there must be some particular defect in a youthful mind, if it do not feel the stimulus which is thereby applied to industry and ambition.

Another advantage arises from this method of practical instruction. The professor is not only enabled to form a judgment, as to the diligence and ability of the young men under his care, but, from his familiar acquaintance with the subjects on which they write, he will also have an opportunity of making such observations on their essays as may correct mistakes in their opinions, and direct more successfully their future efforts. The remarks addressed,

in this way, to one student, are useful to all; for the errors which appear in the essay of that individual, will probably indicate, to the experience of the teacher, those parts of his own reasoning which require to be simplified, or accommodated to the understanding of his pupils, by a more varied illustration. The easy conversational style of explication which ensues, is, indeed, in many respects, more suited to the intellectual habits of the young, than the regular dissertation which occupies the morning lecture; and, in a word, there is no part of the system pursued in this university, which is attended with more numerous and direct advantages, than the practice of writing exercises on the subjects discussed by the professor.

ON THE SECOND ORDER OF THEMES.

On Analysis and Classification.

THOUGH all the orders of themes require the exertion of the principal faculties of the understanding, there is yet, in each class, a more special reference to some one or other of those intellectual processes, to which, in the pursuit of different branches of science, the human mind is necessarily called. The object of the first order of themes was to promote the habitual exercise of those mental powers, by means of which, clear and accurate notions are

formed of philosophical terms, taken separately : the object of the succeeding order is to cultivate the faculties, whose office it is to arrange and classify the subjects of our knowledge, according to their nature and relations.

The process of analysis is indispensably necessary for enabling the mind to form a distinct notion of all the parts of a complex object. We see, for instance, a palace or castle, and the idea of it as a whole is immediately formed; but it is not before we have directed our attention to the several portions of such a building, that our notion of it can be either complete or accurate. The idea of a watch, too, viewed as a whole, is very different, indeed, from that which is obtained by a person who has separated all the parts from each other, made them successively an object of attention, and ascertained their respective office and connection.

So various and multiplied, on the other hand, are the subjects of human knowledge, that it is absolutely impossible to comprehend or remember them, when considered individually. Nature, our first instructor, has, however, taught us to remove this difficulty, by having recourse to the processes of abstraction and generalization. Thus we find, that children and savages proceed, of their own accord, to arrange the objects of their amusement or pursuit; and, in the ordinary business of common life, men are carried, by views of advantage or necessity, to class, with

much readiness and skill, the several objects to which their attention is habitually drawn.

The ancient philosophers carried this natural propensity to an extreme length. They took much pride in the multitude and nicety of their distinctions; and, in fact, exerted themselves more to teach their pupils how to divide and arrange, than to inform them in regard to the nature and quality of the things to which their rules were to be applied.

Still, it will be granted, the principles of a clear arrangement are of infinite service to the interests of science; and, though the processes of abstraction and generalization may be but little promoted by general rules, there can be no doubt that a judicious education tends much to strengthen the powers of mind upon which their success principally depends. The student acquires a ready command and facility in the application of his faculties. He learns, from practice, to direct his attention to these distinctive qualities of objects, under which a great variety of particulars may be arranged; and the exercises, which are prescribed in this part of the course, are, as has been already suggested, calculated, almost exclusively, to assist his discrimination relative to the principle upon which all scientific arrangement must proceed.

As examples, to illustrate this order of themes, which has classification for its object, I may give the

following: "How may the books in a library be arranged, according to a natural or an artificial classification?" "In what way may the whole words of a language be brought under certain classes?" "It is required to state the principles upon which Aristotle formed his predicables and categories?" "Upon what ground are certain faculties of the mind denominated powers of knowledge?"

Again, an oration of Demosthenes or of Cicero is selected, and the student is desired to analyze it into its several parts—the exordium, the propositions, the narrative, the proof, and the peroration. Such an exercise as this serves a double purpose; it accustoms the young men to the principles of division and arrangement, and, at the same time, almost necessarily induces them to renew their acquaintance with classical literature.

In the further pursuance of the same plan, a number of miscellaneous particulars are recited, in the hearing of the class, for the purpose of being arranged on some common principle. A chapter of the Proverbs of Solomon, for instance, is selected, and the students are desired to arrange the several verses according to the connection of the matter. With this view, they are requested to begin by carefully reading over the whole chapter; noting, as they go along, the passages which relate to similar characters, sentiments, virtues, vices, conditions of life, prosperity, adversity, and

such like topics; and then to proceed to reduce them under certain heads, agreeably to the relations which are thus discovered. Such of the verses as cannot be classed under any one of the general divisions, are to be described as anomalous, and placed by themselves; it being understood, however, that the essay which presents the smallest portion of the chapter, under the latter department, will be accounted the best.

Some of the exercises of this order are more laborious than any that have been yet mentioned. More time is, of course, allowed for their execution; and the students are expected to explain, at some length, the arrangement which they may have respectively adopted, and the principle upon which it is founded. Such essays are publicly read in the class, with such remarks as occur to the professor, that each individual, by applying the strictures to his own performance, may have it in his power to ascertain how far his endeavours have been attended with success. And that the juvenile authors may have the benefit of their teacher's experience, he usually reads, at the conclusion of the examination, an arrangement of the same particulars, drawn up by himself, with which they may compare the principle adopted by them, in their private studies. At the same time, it is with no small pleasure he acknowledges, that he has, on more than one occasion, preferred to his own, an arrangement prepared by a diligent and ingenious student.

It is in this way that the intellectual powers, which minister to arrangement and classification, are brought into exercise, and improved at once, in point of vigour and of acuteness. The student is practically taught, not only how to acquire knowledge with the greatest certainty, but, also, in what manner to distribute its various parts, and to connect them by their proper affinities and relations. Amidst the innumerable phenomena which present themselves to the observation of the philosopher, he learns to distinguish, with readiness and ease, the place which belongs to every individual fact; he retains knowledge with greater certainty; he communicates it with clearness and success; he recollects it with facility, and reasons on it accurately and conclusively.

ON THE THIRD ORDER OF THEMES.

IN the former part of the lectures, an analysis is given of the faculties of judging and reasoning; as also, an account of the means which are used for improving these powers of the mind, as derived from the ancient dialectic art, as well as from the more improved logic of modern times. The object of the exercises prescribed under the head upon which we have now entered, is to accustom the student to judge and reason for himself; and, consequently, to form in his mind those intellectual habits, which, at an

earlier stage of his progress, had merely been the subject of examination and research.

In preparing the young logician for engaging successfully in this higher department of mental discipline, I begin by explaining the rules which have been usually given for the management of themes. These directions are collected either from the *Dialectics* of Aristotle, or from the writings of his numerous commentators, or, lastly, from that experience which the long practice of conducting the studies of youth could hardly have failed to supply.

The scholastic writers, it is well known, divided all themes into two classes, the simple and the complex. The former of these comprehends such as may be expressed by one term or more, without conveying either an affirmation or a negation; as logic, education, habit, the fall of the Roman empire, the institution of chivalry. The other class comprehends such propositions as admit of proof or illustration; expressing a judgment which, of course, may be denied, without involving any positive contradiction in the meaning of the terms. The following are examples: "Logic is a useful study;" "Youth is the season of improvement;" "Wisdom is better than riches;" "A public is preferable to a private education."

To give an illustration of a simple theme, I shall suppose the subject to be logic, and shall shortly

apply the scholastic rules to the structure of the essay which should be composed upon it.

The first rule directs the student to begin by fixing exactly the meaning of the term which is the subject of the theme, removing every thing that is doubtful or equivocal in its signification; and when difficulties of that kind occur, the true import of the word must be determined by the canons of etymology, or by the practice of the best writers.

By the second rule, which is the principal one, he is required to explain the essential and accidental qualities of the subject, here supposed to be logic; and to enumerate them, according to their order and importance, and with a reference to the end which is contemplated by the logician. That end is the establishment of truth or the refutation of error; and it is accomplished by the application of those rules of right reasoning in which the art of logic may be said to consist. In these rules are included—definition, division, and classification, as well as those general directions relative to propositions which are derived from the ancient dialectics. But it is unnecessary here to enlarge; for the most important of the rules required, for conducting both kinds of themes, are the same, in so far, at least, as the object of both is the attainment of clear notions, lucid arrangement, and perspicuous expression.

The special rules, which relate to the management

of complex themes, may be shortly enumerated. That no propositions, advanced as the ground of inference and deduction, should be admitted, but upon the best and most solid evidence, arising from sense, consciousness, or experience; or from undeniable truths, such as axioms and intuitive propositions; or, lastly, upon testimony, analogy, facts already proved, the undeviating laws of nature, &c.—that the meaning of the subjects and predicates of the radical proposition be accurately fixed—that the extent of the affirmation or negation be exactly ascertained, so that the proposition may be stated in the most intelligible manner, and the logical rules of division be applied—that the attention be next directed to the kind of evidence by which the proposition is established—and the arguments to be introduced in such order, that those which precede shall throw light on those that are to follow, and form a connected chain of comparisons, by which ultimately the agreement or disagreement, expressed in the proposition, shall be made manifest—and, finally, that all objections against the proposition be candidly and explicitly answered. The proof, when it is long, may be concluded with a recapitulation, containing the united strength of all the arguments which have been brought to confirm it.

It is impossible to prescribe rules which shall exactly accord with the variety of subjects which may come under this order of themes, and, therefore, much must be left to the judgment and experience of

the teacher, in particular cases. It is not every theme which requires the application of all the rules. The first rule may be sometimes necessary—the second is indispensable on all subjects—the other rules are only occasionally required;—a rigid adherence to these rules might render composition stiff and formal; but that would, in a great measure, be prevented, by frequent use and judicious application.

Though, in the management of complex themes, the rules of demonstration cannot be always followed, yet the clearness, certainty, and progress of that kind of reasoning, ought to be the standard, as the best and most effectual mode of procuring the assent of the mind. Let the young composer imitate the geometrician, in first attempting to establish clearly the datum on which the deduction rests, and then proceed, with gradual and increasing strength, to the conclusion.

The following are some of the subjects of complex themes which may be here prescribed: "Personal talents and virtues are the noblest acquisitions;" "The hand of the diligent maketh rich." Other subjects are given out, in the form of questions and contrasts. "What are the causes which make it difficult to command the attention to one object?" "What are the advantages of classical literature?" "It is required to contrast the characters of an indolent and an industrious student." "Is the institution of prizes in universities useful?"

“Do holidays promote study?” “It is required to state the difference between the syllogistic and the inductive modes of reasoning, and the separate advantages of each.” “Whether is a town or a country life most favourable to study?” &c. &c. It is presumed that these occupations, succeeding the delivery of lectures on these subjects, and the reading of authors, to which the students are directed, when regularly practised, must tend to accustom their minds, not only to find materials, but to put them together, and, also, to express them in the manner best adapted to promote the end which they have in view.

To facilitate their progress, the students are referred to some of the most approved specimens of reasoning—for example, to the Tusculan questions and paradoxes of Cicero, and are required to state, in writing, the data from which the deductions or conclusions are taken, to specify the different kinds of arguments made use of by Cicero to establish the proposition, and to characterize the illustrations which are adopted.

Similar exercises may be taken from the arguments on the Philippics, by which Demosthenes induced the Athenians to oppose the designs of Philip—those by which Cicero defended Milo, or impeached Verres, or by which Hanno attempted to dissuade the Carthaginians from intrusting the command of their army to Hannibal.—But it is needless to mention the many

specimens of reasoning in the essays and dissertations of ancient and modern philosophers from which selections may be made, excellently adapted to the students of a first class of philosophy.

It may perhaps be said that such students cannot possess sufficient knowledge to write on these subjects. If perfect or finished compositions were to be expected, there might be good grounds for entertaining that opinion; but the students of a first class of philosophy have the advantage of the course of lectures with which these subjects are connected, and a course of reading directed to the same end—their own voluntary efforts in the search of knowledge—and innumerable specimens of reasoning within their reach. Besides, it is abundantly obvious, that if a young man did not begin to compose on any subject till he had obtained a complete knowledge of it, he would never begin at all, and the season of forming that important habit would be utterly lost. In all cases, perfect specimens must be preceded by many unsuccessful efforts. An eminent writer has candidly acknowledged, that he would be ashamed to disclose the many unsuccessful attempts he had made, before he could produce any thing worthy of public attention. Imperfect, then, as the first essays of the student may be, they constitute the natural and indispensable steps which lead to higher degrees of perfection; and to whom can such attempts be so properly submitted to as to a teacher, who can direct how they may be rendered more complete. Besides,

however difficult some of these subjects may be, they have all of them their easier and more accessible parts within the reach even of the youngest student. He begins his work with the small capital he has already acquired, to which he is constantly adding by each day's diligence and assiduity. Nor ought the difficulty of the execution to be altogether remedied, as obstacles tend to strengthen the powers of resistance. They may be allowed to press upon the minds of youth, not with such overbearing force as to break the spirit, but with such pressure as is sufficient to raise their faculties to strenuous and continued exertion. "*Posse quia posse videntur.*"

The general rules of composing themes, taken from the systems of ancient logic, are chiefly useful to those students who are somewhat advanced in years and in previous attainments.—The younger part of the class cannot receive so much benefit from them. To this portion of his students who are altogether unaccustomed to the composition of themes, the experience of the teacher may suggest other rules, better accommodated to their circumstances and the progress they have made.

These rules to juvenile composers should be addressed not only to their understanding but to their feelings, and should carry with them the authority both of reason and of sentiment; but still they are such as cannot be practised by them without the

voluntary determination of the individual. Of one thing the youngest student must be made sensible from the evidence of his own consciousness, that he cannot expect to compose even the simplest theme, without directing and continuing his power of thinking upon it. He must be thoroughly impressed with the idea, that whatever talents or quickness of parts he may possess, he must employ both time and labour in proportion to the extent of the subject. This power he must be willing to exert, and expect no other reward except the advantage and pleasure to be afterwards received from it. But it is no mean encouragement to be aware, that when he has once acquired the command of his powers of thinking, the chief difficulty of education is over, and it is matter of still farther encouragement to know, that whatever he may have heard of genius and talents in some particular characters, moderate talents, with deliberate and determined resolution, will ultimately put him in possession of all the advantages of education. Instructions cannot be too plain or too minute when directed to young persons entering upon a new and difficult course of study. The experience of the perplexities which assail the juvenile mind, in its first endeavours to discover materials and to find expressions, has induced me to lay aside the authority of the teacher, and to place myself as the companion or friend of the student, in those moments when his difficulties are most formidable.

I suppose then "Emulation" chosen as the subject of a simple theme, which the student is required to explain and illustrate, from lectures, books, and observation, in such a way as to communicate a distinct account of emulation to all who shall read his essay. Where are the materials to be found? His first recourse would probably be to authors who have treated of emulation, from whom he might take what serves his purpose. But he is instructed that there is a nearer and much more fertile source which will furnish him with materials, providing he seek for them in the proper way. And what is that source? His own mind working upon the materials which he already possesses.—Let him put the question to himself "What is emulation?" Here, let him recollect the early scenes in which this feeling was first excited. On the verge of childhood—he must remember the language used in amusements, "I can do this and you cannot," "I shall be at that mark before you." He may have perhaps read the beautiful description of Gray on the Distant Prospect of Eton College,

Who foremost now delights to cleave
With pliant arms the glassy wave, &c.

Or the description of the Trojan games in the sixth book of the *Æneid*. He may recollect, that when at school he contended for the first place in his class—or may now be contending for the first prize at college. Upon the recollection of these scenes, and

from associated feelings which exist in his mind, he is in some sort prepared to answer the question "What is emulation?" A desire and endeavour to excel others,—to be the first in any competition.

From whence proceeds or what excites this desire and endeavour? From obtaining an object first, which other competitors wish to possess. Is it the intrinsic value of the object of competition? No: it may be a sprig of laurel—a palm branch—a fox's tail—a medal of little value—a book—a seat of preferment or of honour. From what then does the object receive its value? It is the circumstance of obtaining it before other competitors. And what is it that gives such value to the being first in the competition? It is the presence of many spectators and admirers. It is their reflected praise which animates the competitors—which makes the breast of the student palpitate when he receives the prize. Let the competition take place in a desert where there are no spectators, the charm is dissolved, and the competitors walk over the course without pleasure or expectation.

Again, what are the effects of emulation? When this principle operates with full effect, and under control of virtue and honour, it produces vigorous conflict, persevering exertion, contempt of difficulties and dangers, increasing hopes, eager expectations, and in the moments of success exquisite

delight. The student may have a clearer view of this generous and energetic feeling, by turning his attention to the histories of great characters and great events, and distinguishing emulation from the effects of other feelings not unfrequently associated with it. He will thus be enabled to draw a clear line of distinction between emulation and its collaterals, ambition and fame. These fix upon the possession of their objects without any view of competition, or of the means by which they may be obtained, whereas the pleasures of emulation spring from the love of excellence and of superiority.

The experience of competitions in which the student has been engaged, or of those which he has observed, will suggest to him, that emulation in its purest form can only take place where the prize is won by the personal exertions of the individual. When any undue means are used to obtain it, or any obstacle indirectly thrown in the way of a rival competitor, the generous flame of emulation is extinguished, and a mean degrading spirit is substituted in its place. One would think that the mortification which the student must suffer when he receives a prize which he is conscious he did not deserve, should dispose him to reject it as altogether unworthy of his acceptance. The student cannot have forgotten the manner in which the friendly stratagem of Nisus, in favour of Euryalus, was received by the other competitors at the celebration of the Trojan games.

An enlarged view should be taken of the field of competition. That field may be called up by the imagination. The person in whom the true spark of emulation is kindled may imagine himself placed upon the same arena with the competitors of other centuries and other ages: Virgil endeavoured to rival the fame of Homer, and Cicero that of Demosthenes. When Cæsar passed the statue of Alexander, he is said to have burst into tears, because the Macedonian, at an earlier age, had surpassed him in military achievements. When ambition and emulation are conjoined in the same character, occupied in similar exploits, it requires some discrimination to determine what belongs to each.

This sketch, of course, is not intended as a specimen of a simple theme on emulation, but merely as a general outline of the materials, with the view of pointing out to the student the course he should take to find them. He has only to embrace the subject of the theme closely—to apply to his own mind for light and knowledge—to press himself with interrogatories relative to his demands—to follow the natural associations of things, and he will soon find materials enough, and arrive at much information which he could not otherwise have conceived to be within his reach. The concluding step is to select from these materials, and to arrange them according to the particular end he has in view. If this part of his work be rightly performed, he will not find much difficulty

in suitably expressing what he clearly and distinctly knows.

I add one example more to show, that a student even of a first class of philosophy may be instructed to comprehend and to explain the elements of abstract subjects, providing they are made accessible by a natural method. It may be required after he has heard the lectures on that subject, to explain the nature and effects of habit.

The student is here directed to begin with close and attentive observation of the subject of the theme.—He must have noticed that movements of the powers of the body in any particular direction have a disposition to become permanent; that is, being once exerted, they are more easily exerted a second time,—and that in proportion as the acts or movements are repeated, the more easily and rapidly they are executed. Hence he learns, that when men wish to acquire facility and rapidity in any movement, they take care to exercise it frequently. When they learn to dance or to play upon a musical instrument, the master first explains in detail the movements which are required, and then requires his pupils to repeat exactly and frequently the movements which are required. The first attempts are performed with difficulty and fatigue, but in due time they are executed with great facility and without any trouble.

It may be observed farther, with respect to such

movements, that the more rapidly and easily they are performed, they are the less perceptible or least noticed, and at last come to be executed without noticing them at all. The dancing master and the musician often perform their respective movements, without being at all sensible of it at the time.

The student may farther be instructed to observe, that not only corporeal movements are thus more readily performed, but the judgments and desires which give birth to these corporeal movements. It is obvious, according to this law, that the more we exercise any particular act of judgment, the more easily and rapidly will it be performed. The same thing occurs with regard to desires, as with regard to judgments; the oftener a desire is formed, the more disposition there is to form it, and the more easily it is excited.

Such then is habit, the result of a general law of all our movements; that the oftener they are repeated, the more easy and rapid they become, and the less are they noticed, till the consciousness is altogether lost, though the movements are still performed.

From these, and similar observations which the student may easily make, many inferences will be suggested that will assist him in the composition of his exercise. He must have learned in particular, that the repetition of acts by which habits are acquired, must be performed at proper intervals—that

if the intervals be long, the habit will be but imperfectly acquired; that habits which have been acquired may be lost by not continuing the repetition; and lastly, that habits extend to the virtues and the vices themselves. Aristotle, in fact, considered the whole of philosophy as comprehended under the five habits of intelligence, wisdom, prudence, science, and art. The great object of education is the acquisition of those habits, which are required in conducting the public and private business of life.

Such is the elementary knowledge which is calculated to prepare the student for executing a theme on habit, and the closer attention he gives to these preliminary steps, the better will he be prepared for the execution of his essay.

ON THE FOURTH ORDER OF THEMES.

The object of this last order of exercises is to improve those faculties of the mind which are employed in the higher processes of investigation, and which, when viewed under a certain light, may be said to constitute the envied endowment of genius.

To *investigate*, is, in the original sense of the word, to search out for an absent object, by discovering and following out the traces which it has left in the path over which it has passed. Thus, we attempt to discover a person who has concealed himself, by mark-

ing his footsteps towards the place of his retreat: and on the same principle, a hound may be literally said to investigate the track of the fox, by pursuing the scent which remains on the line along which the latter had directed his flight.

To these familiar processes may be compared the keen and earnest search of the mind, in its endeavours to ascertain the unknown causes and principles of things. Indeed, the perplexed anxiety which the set-dog often exhibits in the search of game, affords a striking resemblance of the careful, anxious, and occasionally disappointed state of mind which the philosopher frequently experiences in his researches after truth. Trusting to a persuasion natural to the human mind, that every effect must have a cause, and that the connexion between causes and their effects is constant and uniform, the student of nature proceeds through the labyrinth of phenomena, guided by the chain which associates every event he witnesses with some prior event which he infers must have preceded it, until at length he arrives at that ultimate point, which marks the boundary of physical causation, and limits the researches of philosophy.

This process of investigation has often been explained and recommended to young men when entering upon the study of philosophy. But the teacher, in general, satisfies himself with this recommendation, and leaves the student to pursue the difficult

and untrodden path of investigation, without a guide to direct him in the course he ought to take, or to bring him back into it, if he should chance to deviate. It is here where the master generally leaves him, that the art of teaching should properly begin; and it is with the view of supplying in some measure the defect now alluded to, that, in the ordinary business of this class, the student is required to make efforts which are directed and sustained by the assistance of the professor, and to enter upon investigations which he is taught how he may pursue with success. Nor can the teacher find any difficulty in selecting subjects of these important exercises.

Suppose, for example, he proposes, as an object of investigation, to discover the state of Egypt in respect to government, science, and art, in the time of Moses, and the only *datum* given him is this single fact—that fine linen existed in Egypt at that period—In what manner should the student be directed to proceed? He must begin with directing his attention closely to this fact as an effect, and then consider, that fine linen—that is, fine comparatively to other fabrics at that time—must be formed of fine thread, which can only be made of fine flax, which must also have gone through various acts of preparation, in which many workmen are employed, before the threads could be made into fine linen.

The production of fine flax, supposes an improved state of agriculture, and the raising of many other

kinds of grain—wheat, barley, &c. to support the cultivators of flax and the artists who form it into cloth. In no country can flax be the sole article of cultivation. It may be then certainly inferred, that in the time of Moses, the art of agriculture, and the arts connected with it, had arrived at considerable perfection.

Returning again to the *datum*,—fine linen can be woven only in a fine loom, which must be accommodated to the fine texture of the threads, and a fine loom cannot be made without much skill in the arts of working metal and wood. The former is extracted with great labour from ores dug from the bowels of the earth, and must go through many difficult and laborious processes before it becomes malleable; the latter also must undergo much preparation, before it can go into the hands of the carpenter; and the loom itself is a complex machine, supposing great skill and progress of the mechanical arts in Egypt at the time of Moses.

The weaving of fine linen, too, supposes that artists, by imitation and example, have acquired skill and dexterity in that art, and such perfection cannot be expected in any country, till a division of labour—the great instrument of improvement in all the arts—be in some degree established.

The skilful weaver must be wholly occupied in making fine linen, and, therefore, there must exist many

other artists employed in providing food, clothes, and lodging—the necessities and conveniences of life.

Before the arts can have made such progress in any country, men must have acquired much knowledge of facts and events by observation and experience, and have laid the foundations of general knowledge, by speculating on means of improving the arts, on removing the obstacles which retard their progress, and in opening up prospects of higher degrees of perfection.

Farther, without taking up time—to follow the natural and connected progress of the arts from their rude to their more perfect state—I conclude this process of investigation with observing, that there can be little progress either in art or science in any country, without the existence of a supreme controlling power in some or other of its forms, by which men are compelled to live in peace and tranquillity, and the different orders of society are prevented from encroaching on each other, by every individual being kept in his proper station. No arts or division of labour—no fine linen, or fine workmanship of any kind—can be found in those nations which live in continual warfare either among themselves or with their neighbours.

Thus, by such a continued chain of regular and progressive deductions, proceeding from the *datum* with which it began, and without information from

any other quarter, we have sufficient reason to believe that at the time of Moses, Egypt was a great and populous country—that the arts and sciences had made considerable progress, and that government and laws were established.

By the above and similar examples, which will easily occur to the teacher, students may be trained to the process of investigation. A few instances may be given. “What may be learned of the state of Greece, and of the character of that nation at the time Homer wrote the *Iliad*, without deriving information from any other source than from the *Iliad* itself?” “What was the state of the highlands of Scotland, as indicated by the poems of Ossian? Are there any marks in these poems of a later origin, than that generally assigned to them?” “What were the causes which produced an absolute government at Rome under Augustus?” “What occasioned the conspiracy of Catiline?” “Is the character of Hannibal in Livy supported by the narrative he has given of his transactions.” “What were the grounds upon which the Trojans trusted to Sinon’s account of the wooden horse?” “What are the difficulties which occur in forming a standard of taste?” “In what sense is poetry called an imitative art?” “What are the proofs by which Horne Tooke confirms his theory of the origin of prepositions and conjunctions in the English language?” “What are the standards by which we judge of the perfection of one language above another?” “What are the

causes which render it difficult for the student to acquire a habit of attention?"

The efforts which the student is obliged to make in executing such exercises, have a direct tendency to improve the powers of attention, discrimination, and investigation—to conduct the mind from phenomena to causes, from particular to general truths, and thus to produce habits of reasoning which may easily be applied to other subjects. In many of these exercises he sets out from facts, principles, or statements fully established, from which he derives the light which is to conduct him to the next step; and thus he passes along a connected series of intermediate cause and effects, till the investigation be completed.

It is by being accustomed to this track that a young man acquires the habit of searching for knowledge, and also from the increasing vigour and activity of his mind, that he begins to taste the pleasure which arises from intellectual exertion. Once habituated to such researches, he will find it easy to direct his faculties to any subject that may happen to invite his study; he will discover that the same method of investigation may be applied to all questions, whether of science or of history, and to all phenomena as well of matter as of mind: and having in his possession an instrument so extremely efficacious in procuring admittance to the stores of learning, he will neither prize it lightly, nor allow himself to forget its use.

Before I mention more particularly the themes of this order, it is proper to observe, that, about the middle of the session, the exercises performed by the students take a higher range; and are understood to embrace not only the matter communicated in the lectures, but, also, such as may have been acquired by reading and observation. It is presumed, that the practice which the young men have already had, in the arts of thinking and composition, has, in some degree, prepared them for greater efforts in both; and, proceeding on this principle, the themes prescribed after the period just mentioned, are of such a nature as to require considerably more time, knowledge, and reflection, for their due execution. Every exercise is now fully written out, and, at the appointed time, delivered to the professor; in whose hands it undergoes a strict examination, and is afterwards returned to the author, with remarks, both on the materials and the composition, which are publicly read in the class.

The principal object proposed by this division of the fourth order of themes, is the improvement of genius, a term usually applied to that power of the mind which takes the last or concluding steps in the processes of invention and discovery, which detects new relations among objects, and forms new combinations in the elements of thought.

It has been maintained, in reference to this subject, that, as genius is the gift of nature, it cannot

admit of improvement by industry or by art. To a certain extent, this opinion is well founded, inasmuch as no rules can be formed, or precepts delivered, by which the student can be directly led to invent or to make discoveries; that is, to take the concluding step, without reference to any of the previous steps, in the process of investigation. I have already remarked, that the power of genius depends upon the cultivation of those faculties of the mind by which we form distinct notions, recall and arrange our ideas, and pass accurate judgments on their various qualities or relations. In this sense of the term, it will not be denied, that, by the application of proper means, the activity of genius may be promoted, and its powers enlarged; for, in so far as the operations of the inventive faculty depend upon clear views and sound inferences, its improvement is necessarily implied in that of the intellectual energies at large.

With that view, a variety of themes are prescribed as the subjects of exercises, of which the following may serve for an example. "Upon what principle may the different kinds of composition be classed?" "What is the difference between poetry and prose, in the matter as well as in the style?" "It is required to illustrate the division of poetry into descriptive, narrative, and representative." "What is the ground of distinction between the liberal and mechanical arts?" "Why are the liberal arts called imitative, and which of them has the best title to that epithet?" "How may the *Iliad* and *Æneid* be

compared, and on what principle is the preference to be determined?" "It is required to illustrate those passages in the 'Paradise Lost' in which the vigour and sublimity of Milton's genius are chiefly displayed."

From these and similar subjects, it may be perceived, that, in this part of the course, the principal object is to excite and encourage exertion, in those higher powers of taste and judgment, on which the development of genius is found chiefly to depend.

But it is not enough that the teacher prescribe subjects and enjoin the composition of essays, if he do not, at the same time, put his pupils in the way of acquiring knowledge, and of employing it in such a manner as will immediately conduce to the improvement of their minds. Suppose, for instance, that the theme prescribed is conveyed in the following question: "What are those parts of the *Iliad* which display, most strikingly, the genius and inventive powers of Homer?" How is the student to proceed to write an exercise on this subject? I answer, he must begin by a minute examination of the splendid example of epic poetry, on which his judgment is to be eventually employed. He must take Homer himself for his guide, until he have made himself so completely master of the object and structure of this species of composition, as to be able to apply to the illustration of the great work in question, the princi-

ples which he has derived from the analysis and criticism of its several parts.

The student knows, from what he has heard, as well as from what he has felt, in relation to literary pursuits, that the shortest, easiest, and most pleasant method of conveying instruction is by example. "Longum iter per præcepta, breve per exempla." "Verba movent, exempla trahunt." The example placed before him, in the present case, is the *Iliad* of Homer, and it is to be applied to the illustration of the mental endowments, and, more especially, the poetical genius of that celebrated author.

There was a time, the student will say, when Homer as yet had no thought of attempting this great work. It was upon some fortunate occasion, it may be presumed, when his mind was more than usually warmed with the traditionary anecdotes of the Trojan war, in which so many brilliant exploits were ascribed to his countrymen, that he resolved to do honour to the Grecian name, by writing a poem in commemoration of their achievements. Rejecting the absurd romances which had reached his times, relative to the events of the war, the genius of Homer led him to adopt, for his immortal epic, the broad and lasting basis of human nature and human passions; combining, in a judicious proportion, such a happy mixture of narrative and description, as has rendered his

work the delight of all civilized countries for more than two thousand years.

Now, with this example before him, the student, by awakening his imagination and sympathies, will be able to watch the motions of the poet's mind, from the first conception of his design till its final completion. He will mark the adjustment of the plan—the fable or story—the course of extraordinary events and actions—the characters selected for the performance of these—the discrimination and taste exhibited in the adaptation of sentiments and manners, particularly in the delineation of those various degrees and shades of courage, which, though belonging to all, is yet rendered distinctive of every individual, both among the Grecian and Trojan chiefs—he will note the influence exerted on the character of the poem, by the system of morality and religion which prevailed in that remote era, as also, the occasions and the effects of introducing, into the midst of human exploits, stratagems, and adventures, the designs and operations of supernatural beings. In short, nothing must escape his observation, that may tend to put him in full possession of the author's views, explain to him the nature and use of his materials, and qualify him to form a judgment, in regard to the general success of the undertaking.

But, supposing that the student has derived all the advantages which may be expected from this method of studying the *Iliad*, his work is by no means fin-

ished. There are other epic poems to be examined, the critical knowledge of which will open up to him a field of comparison, as to their several plans, subjects, and execution. While he traces the path of genius, in the works of great authors, his own powers will receive both excitement and direction; and the young man who has, in this way, learned to admire, will probably assume, in time, the courage to imitate.

These observations are not confined to the department of epic poetry. To whatever description of literature the mind of the student may be carried, by original genius, by choice, or by accident, he must pursue his studies in a similar manner. The best specimens must be carefully examined; and, in doing this, he must accustom himself to follow the mind of the author, in the formation of his plan, the arrangement of his materials, and in the general structure of his work. He must perceive the object of the writer, and then measure his genius and taste, by the method which he has adopted, and the success to which he has attained. Whether it be poetry, or eloquence, or abstract reasoning, the young critic has the same path to follow; and he may rest assured, that, while he traces the footsteps of distinguished talent, his own mind will be expanded, his judgment improved, and his sensibility refined.

It may be proper, at the same time, to admonish him, not to give way to the first impressions of

his admiration, nor to trust implicitly to the judgment of his author. The imitation which is founded on ignorant delight, will never produce any thing great; and it is he only who understands what he approves, who will ever derive any advantage from studying the masterpieces of literature.

In this way, which has perhaps been more minutely described than was necessary, the student will, by degrees, find himself qualified for composing the exercises which are prescribed at this stage of our business. Supplied with abundance of materials, now chiefly of his own acquisition, he should find little difficulty in applying to his subject, whatever it may be, the rules of method in which he has been previously instructed.

There are still two descriptions of themes, which have not yet been mentioned, but which must not be omitted, in the enumeration of the means which are employed, in this class, for improving the higher powers of the mind. The first of these is the Socratic dialogue, the second is the Aristotelian method of disputation.

THE SOCRATIC DIALOGUE.

THIS form of composition is very ancient, and appears to have naturally arisen from the circumstances in which men begin to reason and to express their thoughts. The earliest philosophers, there is little

doubt, gave utterance to their opinions in conversation, either as answering questions or explaining difficulties; and hence it was to be expected, that their first compositions would affect the form and style of the dialogue, modified according to the habits of particular persons and times. This species of writing, indeed, is found to suit the taste of refined nations, as well as of those which are still in the infancy of civilization; and, when it is well executed, it never fails to serve the double purpose of instruction and amusement.

The particular form of dialogue which bears the name of Socrates—the state of knowledge and manners which suggested the use of it to that celebrated teacher—his skill in the management of it, as applicable to certain characters and prejudices—are topics which have been so frequently discussed, that it would be superfluous to enlarge upon them here. Besides, it is my wish that the student should acquire the requisite knowledge on this subject from the original authors, and study Socrates in the writings of Plato and Xenophon, the two most distinguished of his disciples. In using this language, it may be proper to add, that the philosopher of whom we are now speaking, never appeared as a public teacher, nor as the father of any particular school, in moral or physical science; but, simply, that he was in the practice of giving, gratuitously, to those among his friends and acquaintance who appeared to stand in need of it, an advice when they were in difficulty, and

an admonition when they were in error. These objects he usually accomplished by drawing his auditors into conversation, relative to the points in which their interests were concerned; in the course of which he generally led them to administer to themselves the reproof which their folly deserved, or to draw forth the lesson which their ignorance required. It is the substance of the more remarkable of these ingenious dialogues which the writings of his celebrated followers have preserved, for the instruction of so many generations.

I am not aware of any compositions so admirably fitted to accomplish the end which their author had in view, as the most of these memorable dialogues. They are particularly calculated to interest the minds of the young, and to lead them, by an easy path, into those trains of thinking and feeling which conduce to knowledge, to truth, and to virtue. It is unnecessary to point out their excellencies more in detail; as no teacher will find any difficulty in making a choice suited to the circumstances of his pupils. The dialogue with Glauco might perhaps be mentioned, as one of the most interesting to a youthful mind, and as affording a striking example of the success which almost constantly rewarded the affectionate wisdom of the Grecian sage, when employed in counsel or remonstrance.

If, then, a teacher or parent should find it necessary to check the petulance, vanity, and presumption

of youth, or to expose, in a gentle manner, the foolish pretensions of one, who, without knowledge or experience, should think himself qualified to fill a high and important office, he might find a useful guide in the dialogue to which I have just referred. If a master should have occasion to reprove his scholars, or to convey unwelcome instruction, in regard to character and prospects in life; if he should wish to employ against them their own good sense, and to convict them of impropriety on the evidence of their own judgment and feelings, let him turn, for a lesson in this difficult art, to the dialogue between Socrates and Glauco.

It is impossible, even for the youngest person, to peruse this admirable piece without deriving advantage from the practical wisdom by which it is distinguished. When he witnesses the entire ignorance of Glauco, joined to his overweening presumption, and observes by what repeated concessions he is driven to acknowledge, that his pretended learning was not only useless but hurtful, he cannot fail to entertain a thorough contempt for every such character. When, again, he examines the procedure of Socrates, and marks the insinuating, condescending, and even eloquent manner in which he convinces the young man of his incapacity, he will necessarily be led to cherish a deep veneration for the uncommon temper and prudence with which so delicate an office was performed. The other dialogues are equally useful, as affording an excellent model of practical

reasoning. The study of them is extremely beneficial, for, though not very closely connected with the higher powers of genius, they throw a steady light on the leading features of the human mind, and materially improve the faculties of attention, judgment, and reasoning, on which the former essentially depend.

When the student has been made acquainted with the principles of the Socratic dialogue, and has imbibed something of its spirit, subjects are given out for exercises on that plan of composition. The experience of the teacher will suggest suitable topics. For example, a dialogue may be imagined between two persons of different characters, on the good effects of early diligence and application, in the course of which, the excuses of the idle student might be successfully exposed. Again, the Socratic method may be adopted to set forth, in its true colours, the disgraceful conduct of him who receives a prize for an essay which has been written by some other individual. The dialogue, in this case, would exhibit such a view of the dishonourable motives by which the supposed youth must acknowledge himself to have been actuated, as would deter every one, of common sensibility, from incurring a similar imputation. But, as I have just observed, the experience of the teacher, and the particular circumstances in which he finds himself placed, will supply him with abundance of topics for exercising his pupils on the Socratic model; there being no farther peculiarity

in such themes, than that there shall be some prejudice to overcome, or some error to correct.

I never leave this branch of the lectures, without earnestly recommending to the young men under my care, a sedulous study of the precepts and method of Socrates, whose talents and courage brought about a great revolution in the philosophy of his age, and from whose school, if it may be so called, proceeded a greater number of ingenious writers, than from any other seminary of ancient times.

The other species of themes to which I referred, as applicable to the improvement of those faculties which constitute genius, is taken from the method of debate or disputation founded upon the *Analytics* of Aristotle. This method was constantly practised, in all schools and universities, during the scholastic ages, and the remains of it have come down to the present times.

It must be admitted, by those who have examined the literary history of that period, that much of the characteristic acuteness and ingenuity of the scholastic philosophers, is to be attributed to the Aristotelian method of debate; which, indeed, they cultivated with singular industry. It was, in fact, considered as almost the sole object of public education. Every other branch of instruction was made subservient to it, and neglected or pursued according as it tended to oppose or promote its advancement. The moment

the student entered college, he was taught the elements of this art; and, to prepare him for the warfare in which he was about to be engaged, there were regular days of discipline, on which the young men were called forth, to try their strength under the eye of their master, and to practise the strict rules of syllogistic disputation.

In those times, also, disputes and controversies on doctrines of religion or philosophy were carried on by the learned doctors, in public assemblies frequented by persons of all denominations. There was a period when there was nothing more common than for kings and princes to attend these syllogistic skirmishes. They seem to have been one of the favourite amusements of James the First of England, whose temper, education, and habits disposed him to take a deep interest in such disputations. On some occasions, he appears to have been much disposed to lay aside the dignity of the monarch, and to try his strength as a master in debate. On his visit to Scotland, for example, in the year 1617, he was very desirous to hear a syllogistic disputation. He, accordingly, ordered the professors of Edinburgh college, which he was accustomed to call his own college, to attend him, in the royal chapel at Stirling Castle, on an appointed day, where he was surrounded by the flower of the nobility, and by many learned men of both nations. The subject of disputation had been previously announced.

Mr. Henry Charters, the principal, being averse to such a public appearance, deputed Mr. John Adamson, one of the professors, to preside in the disputation; and Mr. James Fairly to defend the thesis; Mr. Andrew King, Mr. James Reid, and Mr. William King, were appointed to impugn it. The king made his remarks upon it, which he delivered with great authority and pedantry, but not with much delicacy. One of the theses was on "local motion." The king was much pleased with the defence, and advanced some arguments against the thesis, observing, with great triumph, to some of the doctors near him, "These men know Aristotle's mind as well as himself while he lived."

On some of the other theses, his majesty sometimes spoke for the impugner, and sometimes for the defender, in good Latin, and with considerable knowledge of scholastic philosophy.

After disputation, the king went to supper, and, soon after commanded the masters of the college to wait upon him, and, in their presence, he discoursed very learnedly, of all the purposes which had been agitated, and then addressed the actors—"Methinks," said he, "these gentlemen, by their very names, have been destined for the parts they have acted to-day. Mr. Adamson, you was president—Adam was father of all, and very fitly Adamson had the first part of the act. The defender is justly called *Fair-lie*—his thesis had some *fairlies*, and he

supported them *fairly*, and with many *fair lies* given to the impugners. And why should not Mr. Sands be the first to enter the *sands*, but now I clearly see that all sands are not barren, for certainly he hath shown a feckless wit. Mr. Young is very old in Aristotle. Mr. Reid need not be red with blushing for his acting to-day. Mr. King disputed very kingly, and of a kingly purpose, anent the royal supremacy of reason over anger and all passions." One who stood by, told his majesty that there was one of the company of whom he had taken no notice, viz. Mr. Henry Charters, principal. "Though averse to speak in public in so great an assembly," wisely answered the king, "his name agreeth very well to his nature, for charters contain much matter, yet say nothing, but put great purposes in men's mouths."

One of the English doctors, wondering at his majesty's readiness and elegance in the Latin style,—
 "All the world," said the king, "knows that my master, George Buchanan, was a great man in that faculty—I follow his pronunciation both of the Latin and Greek, and am sorry that my people in England do not do the like, for certainly their pronunciation utterly spoils the grace of these two learned languages, but you, all the university, and the learned men of Scotland, express the true and native pronunciation of both."

His majesty continued his discourse, upon the purposes of the dispute, till ten o'clock at night, and

professed that he was exceedingly satisfied with the exhibition. He took occasion to speak of divers points of philosophy, with much subtilty and variety of knowledge, as we are told, to the admiration of the hearers.

So few occasions occur, in a work of this description, to diversify or enliven the statement, that I have introduced the above account, both as characteristic of the persons and of the times, and also to relieve the attention of my readers, and to show them, that some of those exercises in which we are engaged, and of which they may think little, at one time formed a part of royal festivities and amusements.

This method of discipline, when practised according to the most approved rules, was certainly attended with some advantages. It had a manifest tendency to sharpen the invention, for it placed the parties in a situation where quickness and activity of mind became the necessary instruments of self-defence. The prospect of the difficulties to which they might be exposed, in the day of battle, would necessarily produce earnestness and diligence in their preparation for it. When the one party knew that the subject they were studying was also engaging the attention of others, who were preparing to expose and to triumph over their ignorance, they must have felt the strongest motives to examine the question on all sides, and to leave no part of it unexplored; it being well understood, that, in the heat of the contest, the

defender could apply to no other resources, than those which necessity and difficulty, the parents of invention, might happen to supply. Further, this mode of regular discipline would be found to produce in the disputants, a steady, collected habit of mind, not easily deranged by difficulties, nor unprepared for sudden, unexpected attacks; securing to them, on all occasions, the free and undisturbed exercise of their faculties.

But with all these advantages, this scholastic discipline labours under many and great defects.—It tends to produce a love and habit of disputation on all subjects, which, when carried to the common affairs of life, renders the disputants intolerable in society. It gives to the impudent and forward, a great advantage over the modest and diffident, conferring on those who are familiar with technical forms the appearance of a victory, though opposed by others who are better acquainted with the subject.

But the best proof of the defects and imperfections of this mode of discipline arises from experience. It was universally practised not only in schools, but in more public assemblies, it was tried completely on subjects of theology and philosophy, and in both, has proved an unsuccessful instrument for promoting either knowledge or eloquence. It was not indeed to be expected, that truth could be discovered in the heat of disputation, when the passions were wrought up to the highest pitch.—We might as reasonably

expect the discussion of philosophical theories in the turmoil of battle, when the combatants are every moment agitated with the hopes of victory, or with the dread of defeat.

But whatever may be the good or bad effects of the Aristotelian mode of disputation, it is obvious that it cannot be practised with all its forms in a first class of philosophy, as now constituted. The students are just come from their classical studies, and are, in general, of such an age, that they cannot be supposed to have that complete and extensive knowledge of the subjects of dispute to qualify them for a public appearance, according to the scholastic form of debate. It may, perhaps, be possible to establish such a mode of discipline in a first class of philosophy, as may preserve the spirit and usefulness of the dialectic institution, without incurring any of its disadvantages. This attempt I have repeatedly made; and I mention it with much diffidence, because I believe it to be the first experiment of the kind, which has been made in any similar class.

The following are some of the subjects which may be brought under the fourth order: "Wisdom is better than riches;" "A public is preferable to a private education;" "An institution of prizes in universities is useful;" "The early habit of reading novels is hurtful to serious study;" "Ought eloquence to be joined to philosophy?"

One of these propositions is proposed as the subject of an ordinary exercise, and the students are required in composing it, to consider the subject on both sides, and to bring forward the arguments and objections in their proper order. By these means they are furnished with a competent knowledge of the subject. At some distance of time, and without any previous notice, the professor again introduces the subject—announces the proposition, and calls upon any individual to state an argument in the affirmative. He is next required to state an objection to the proposition, and to bring forward an argument against it. Similar questions are asked till the subject is exhausted, when some one of the students is called upon to recapitulate the arguments in favour of the proposition, or in opposition to it, and when that is done, another is required to compare and determine the difference.

Suppose the subject of dispute to be, “Can eloquence be properly joined with philosophy?” This question being fairly stated by the professor, he calls upon any student to bring forward an argument for or against the opinion. It may be said, that the end of these two branches of knowledge are so remote from each other that they cannot be properly conjoined. The next question is, “Who can impugn this argument?” It may be answered by a limitation, as follows; though the ends of philosophy and of eloquence be different, they are not repugnant or contradictory, and may therefore be united. As a second objection to the doctrine, it may be stated, that eloquence

weakens the credit of philosophy, and ought not to be joined to it;—this brings an answer from another quarter, that it is false eloquence only that can have that effect, but that true eloquence adds force to argument on the side of truth.

It has been farther stated, that whatever God has not joined with theology ought not to be joined with philosophy. This objection may be altogether denied;—the sacred scriptures, though delivered in the simplest style, abound in many of the finest figures of eloquence. An argument of testimony, or authority may also be stated:—Cicero has said, that “if the philosopher has eloquence, I don’t despise it; but if he has it not, I don’t care much.” Who can give an answer on this point?—Cicero in another part of his work praises eloquence, for he has said “Eloquence is the light of genius.”

Upon some occasions, this exercise is carried on with more formality, and approaching a little nearer to the ancient institution. The students are informed the preceding day, that some of these questions already mentioned are to be proposed as a subject of discussion, and that they are to come prepared with arguments and objections. It is chiefly required that the principle of the argument or objection shall be distinctly stated, as also the inference or deduction from it, without any thing extraneous or declamatory; and it is the duty of the professor to prevent any deviation from that rule, to interfere when ever

he finds it necessary, and to continue the debate no longer than he sees it to be useful. To secure the attention of all, when the business of argumentation is over, a recapitulation is required from those who have taken no part in the debate, of the various arguments and objections which have been advanced on either side.

Without any fixed rule with regard to subjects or times, questions are asked almost every day, on those topics with which the students may be supposed to be somewhat familiar. They are required to make distinctions—to state propositions—to assign causes—to explain maxims—to describe objects or events—to define terms—to give an account of what they have read, classical or historical, according as these may be suggested by the business more immediately before the class.

Experience has enabled me to render this exercise particularly useful to one description of students. There must always be some young men in a numerous class, who, either from youth, aversion to study, habits of idleness or defects of former discipline, in spite of every effort that can be made to induce them to exertion, do not enter heartily into the business, and thus are in danger of being left behind. Though obliged to give their personal presence, they sit with vacant and unoccupied minds, sometimes to the annoyance of their more industrious neighbours. Keeping in view this unfortunate class

of students, I have found it useful to question them upon the books they have read, to extract from them what they have of classical knowledge, or what facts of history they remember, and to enjoin them, as cases may require, to give an account, at particular times, of subjects presented to them, or of the manner in which they have occupied their hours of study. This brings upon them the particular notice of the class; and many instances have occurred of the successful endeavours of such young men, to extricate themselves from this marked situation.

Lastly,—on Saturdays an attempt is made to apply the powers of investigation and reasoning to two important subjects, in regard to which, above all others, the notions and opinions of young persons should be placed on a solid basis;—namely, on the proper arguments for the existence of a First Cause, and the necessity of a divine revelation. This is not done by any regular lecture on those subjects which fall under the department of other professors, but in one of those modes of intercourse with the students, in which they have to bear their part. On each of these important questions, they are called upon to express the notions they entertain, and the illustrations which have occurred to them; this affords an opportunity of rectifying, enlarging, and confirming the grounds on which their belief of these fundamental truths ought to rest. These are subjects in which the students take great interest; and just notions thus early communicated, may tend not a little to give

them confidence in their opinions, as well as to fortify their minds against those attacks of sophistry and infidelity, with which they may be hereafter assailed. The whole of this part of the subject is concluded with an earnest advice to them never to commit themselves rashly, nor to be forward in expressing their opinions on such subjects, to listen at all times to the suggestions of truth and reason, and in general, to canvass such subjects only with those, who, like themselves, are desirous of forming their opinions on the basis of sober and rational enquiry.

With the same view of unfolding and extending the power of genius, exercises are occasionally proposed during the end of the session, which afford still more ample scope for ingenuity. In the former classes of themes, the students have been accustomed to the strict observation of rules, but they should be sometimes left to form rules for themselves in the management of their themes. In the fine arts, unless the work of the imitator excel the standard, these arts are at a stand, and no farther progress can be expected. Rules prevent deviations and irregularities, but they can never create inventions, or lead to higher degrees of excellence. The noblest works of genius have not been the result of precept, but, on the contrary, have sprung from ignorance of all authority, or from contempt of its injunctions. Young persons, therefore, in the course of their education, should be left on some occasions to the native impulse of genius and of taste—to make bold attempts, to disdain the

little limits of their reign, and “unknown regions to descry.” The great diversity of talents and of taste in so many youths should be allowed to disclose itself, and not always be fixed into the same direction, or be stretched upon the same bed of Procrustes.

In this class of voluntary themes, the choice of the subject and the manner of treating it, are left to the discretion of the students, with these restrictions only, that the subject be important and useful, and that it bear some relation to the themes usually prescribed. If the student make an improper or an unseemly choice, his labour is lost, and the performance is returned to him without any notice being taken of its contents.

Experience has suggested a precaution in regard to this sort of exercise. Young persons in such circumstances are apt to be undecided in the selection of a subject, to bewilder themselves amidst a multiplicity of different topics, and to spend much time unprofitably in choosing and in rejecting. They are, therefore, required, in two days, to give assurance that their choice has been made. They are admonished to proceed according to the well-known precept of Horace—“*Sumite materiam, vestris qui scribitis æquam,*” &c.—and to select a theme from those subjects with which they think themselves best acquainted. It may be a narrative or a description, a dialogue, a demonstration, an essay, an epistle—a

fable, a specimen of imitation or of investigation—a poem, lyric, pastoral, descriptive, narrative, representative. The students are particularly desired to bring forward their performance in their own manner, to give full scope to their thoughts and feelings and their natural mode of expression, that an opportunity may be afforded of giving instruction and advice, in regard to the bias and character of their minds, and of guarding against those faults in composition to which each seems peculiarly exposed. They are required to subjoin a signed declaration to their theme, that it is their own composition, and not copied or altered from any author.

This species of exercise serves an important purpose, and, therefore, ought to receive the deliberate judgment of the professor. The students have been invited to try their strength, to discover the natural bent of their minds, and those peculiar talents on which their future prospects and success in life depend. A rash or inconsiderate judgment from the professor might flatter delusive hopes, or check the rising efforts of genius. He may have it in his power to impart such counsels as may save much fruitless labour, or prove the means of great success. It is much more useful to put the young inexperienced traveller in the right path, at the outset of his journey, than oblige him to retrace his steps, when he is advancing towards the end of it.

The professor has, indeed, rather a delicate task

to perform, in passing his judgment on such essays. He may find it necessary to communicate instructions which are not to be found among the canons of criticism. He may have to recommend a different direction of talent from that which may be indicated by the particular specimen presented to him, and to tell plainly where he thinks the strength or the weakness of the author lies, where the current is likely to carry him, and where it is to set. When he has to judge of poetical essays, he may have to intimate whether he thinks the promises in that direction are sufficiently strong to justify perseverance; and, not unfrequently, to advise the aspiring youth to confine himself to the more humble path of prosaic composition. Some of these remarks he does not bring before the class, but reserves for private advice and admonition.

Such, then, are the objects and the general course of those exercises which are prescribed in this first class of philosophy, as favourable to the improvement of genius. Without pretending to deny the great and striking difference in the original constitution of the human mind, as apparent in different individuals, I think it cannot reasonably be doubted, that the highest intellectual endowments fall, to a certain extent, within the reach of education. In proof of this, we may remark, that no person ever possessed these endowments in perfection at the first attempt; while, on the other hand, we may often have observed them confirmed and enlarged by fa-

vourable situations and circumstances. When the experienced general served his first campaign, he did not possess that nice tact of fixing on a favourable field for action which he afterwards acquired. When the man of science arrived at his first deduction, in the course of his investigation, he was incapable of forming those more extensive and general conclusions to which he afterwards attained. Many are the quick and dexterous processes of the mental powers, which are acquired even in the earliest period of life. The boy, at first, finds great difficulty in connecting the ideas of objects with external signs, or in combining letters and words; both of which he afterwards accomplishes with a rapidity that escapes his notice. How quick are those acquired perceptions by which we judge of distances by the eye. What facility and despatch in the exercises of bodily and mental powers do even the most common characters display in their respective arts and professions. What rapid judgments are formed by the rope-dancer—the ventriloquist—the master of legerdemain. It seems impossible to deny, that the force of habit extends also to those pure movements of mind, now under consideration, so as to bring them, at least, within the range of improvement. It remains, however, a matter of considerable difficulty, to discover those means of improving the mental energies which may be properly included in the discipline of a first class of philosophy.

It is admitted, on all hands, that the most valuable

habits of the mind cannot be attained either by rules or precepts, or by the most ingenious lectures on the principles of science. Whatever is done in this way, must be accomplished by placing the student in such situations and circumstances as render his own exertions indispensable, and by encouraging and assisting these exertions. We cannot, indeed, anticipate the particular scenes and occasions which may make the greatest demands upon his acquirements, but we should approach as near as possible to those, in a system of education which professes to qualify men for the duties of public life.

To anticipate these, in a considerable degree, is one of the peculiar advantages of a public education. To counteract doubt, hesitation, and delay, the sources of so much evil and disappointment, exercises should be prescribed, which oblige the student immediately to take his ground and exercise his faculties. Again, to enable him to apply his mind to any subject, with the same ease in the presence of others as in private, let him be accustomed to stand up in his place, to collect his thoughts, and to express them; taking care that the subjects be such as he has had the means of understanding, and on which he may even have collected a stock of ideas. As it often happens, that he is discouraged from making any attempt, by the first view of the difficulties which attend it, every thing should be done, on the part of the teacher, to overcome this natural and not unbecoming repugnance; and to encourage him to make

an effort, to a certain extent at least, by assuring him that his future efforts will be more successful.

Many of the exercises already mentioned may be properly employed for the acquisition of the habits now under consideration. Some of them are proposed to the class as subjects for extemporaneous discussion, and, after a few moments' consideration, such students as think themselves qualified, are encouraged to make the attempt, in their own manner. If any difficulty occur in the outset, the professor conducts them over it, and then leaves them to proceed in their own way. When one student has concluded his remarks, it is asked, whether there be any others in the class who may choose to enlarge, or to correct what has been already advanced. On all such subjects as are supposed to be within their reach, they are required to collect their thoughts—to arrange—to distinguish—to compare—to draw conclusions,—and to express their opinions, trusting to their particular resources at the moment for the successful issue of their undertaking.

In following up this plan, the professor puts in requisition the knowledge which they have collected from their general reading, and particularly from the perusal of history. With a view to this exercise, in the beginning of the session, the students are required to fill up the time which the daily business of the class may not require, by reading the works of travellers among rude and uncivilized nations, to be

prepared for such questions as may be asked respecting their government, religion, arts, occupations, manners, and amusements. This practice accustoms them to arrange and to express their thoughts, and affords, at the same time, strong motives to read with suitable attention and reflection.

It is certainly surprising, that the wisdom of legislators and philosophers, as well as the common sense of all who have an interest in education, do not insist upon a more obvious and close connection between the public methods of conducting it, and the talents which are required for carrying on the business of active life. These talents and accomplishments cannot be attained by lectures or formal discussions on scientific principles; but to these must be added, as absolutely necessary, such exercises as promote decision and despatch, and dispose the mind to seize the fittest occasions and the happiest moments for active and vigorous exertion.

In the management of great and complicated negotiations, and also in those of lesser concern, where there are various interfering interests, requiring mutual adjustment and accommodation, often with little time to devise expedients, the man nowise substantially deficient in talents, who can only think or act according to a regular process, is completely outstripped by the ready use of those powers by which men conceive, judge, and determine as by intuition. Many persons can make a set speech for a public

assembly, if they have time for preparation, who are altogether thrown out, if any thing unexpected occur to derange their prepared train of thought, and their connected chain of reasoning; but how different is this slow and cumbrous process, from the facility and dexterity with which the accomplished orator draws his materials, in the instant, from the most remote sources of his knowledge, or from the readiness with which the man of science supplies himself with appropriate arguments and lucid illustrations, to confirm his theory or his hypothesis.

Any system of education, therefore, which promotes the development of those intellectual energies; which tends to create presence of mind; a ready command of the faculties; a fertility of expedients; spirit in the attempt, and celerity in the execution; must prove of incalculable benefit. These important processes of mind are apt to be impeded, rather than improved, by the common discipline and the ordinary routine of our systems of public instruction. Many, indeed, have doubted, how far these high intellectual energies are at all within the reach of education. But no fair trial has yet been made. Why should not the attempt be hazarded, instead of dreaming on for ever, and slavishly following the beaten track, without any effort to improvement?

The author concludes the subject of themes, by repeating once more, that the various means adopted for the improvement of the higher powers of intellect

are described here, not as the best that might be devised, but merely as those which have appeared such to himself; and, also, that he will gratefully receive every candid remark on what he has advanced, and take in good part, every suggestion which may contribute to further the important objects which he has all along had in view.

ON THE METHOD OF DETERMINING THE MERITS OF
THE THEMES.

THE labours and the anxieties of the student are by no means at an end when he has executed the prescribed theme, nor those of the professor when he has delivered his lecture, and finished his examination. It cannot be expected, that the difficult art of composition can be acquired by listening to lectures, and making a few unconnected efforts to express thoughts in a written form. The execution of a series of such specimens is the foundation on which the only effective system of discipline can be constructed; without which, neither the professor nor his students can be properly said to have discharged their respective duties. What, let me ask once more, is the line of conduct which the master-artist pursues, when his apprentice has shown him his first specimen of workmanship? He examines it carefully, he compares it with the instructions he gave, and points out to his apprentice where he has done right, where he has failed, and where also he has succeeded beyond expectation. He accompanies his remarks with still farther instructions, to be observed in the next succeeding attempt. When the next specimen is produced, he makes a still more scrupulous examination; he extends his instructions to smaller imperfections, and directs his attention to nicer beauties. The teacher of philosophy, if he wishes to do any good,

must follow this example; and such a person neither understands his art nor his duty, if he does not cheerfully bestow the additional time and labour, which the improvement of his students certainly requires.

The specimens executed by the students are not all of that order which require to be submitted to the deliberate examination of the professor. With regard to the first class of themes, he requires only that the student should read them, when called upon, in the presence of the class; and he takes an opportunity of making such remarks as occur. Those which are to undergo a more complete examination, are usually entered upon about the middle of the session, and are composed with that view. A greater degree of attention is bestowed upon them, and longer time is allowed for their execution. These themes must be written out in a clear distinct hand, without interlineations or corrections. They must likewise be delivered at the appointed time, that another exercise may be prescribed while the former is under examination. The professor carries the exercises home with him for private examination, and brings a certain number of them every day to the class, with the corrections which he has made, reading such parts of the themes and criticisms as he finds necessary. In this manner, during the two or three last months of the session, the business is carried on; one theme being under inspection, and in the course of being read in the class, and returned to the students, while they

are preparing another to undergo the same process of remark in private, and reading in public.

It is scarcely necessary to remark, that the nature of the judgments which the professor passes on these compositions must vary according to the merits or demerits of the execution, the form of the composition, and the progress which the student has already discovered. There are two general views, however, which the professor endeavours to keep before him in the examination of these exercises. First, to trace the course or tenor of the student's mind, from the beginning to the end, in the introduction, selection, and connexion of his materials, that he may be enabled to point out, when he has gone astray, or when he has kept on the right path, and whether he has chosen the best course to attain his end. Secondly, to observe whether the quality of the style be such as seems accommodated to the nature and kind of the materials, and to the end in view. When the professor returns these exercises, he delivers his judgment publicly in the class, and reads those parts of the performance, when he cannot overtake the whole, to which his remarks have a particular reference; at the same time, informing the author for his benefit, and that of the class, whether upon the whole the topic has been properly treated, in what points it is defective, whether digressive matter has been introduced, the rules of method properly attended to, and the language adapted to the subject; nor must he forget to point out those parts in which

the student has been most successful, that by his public approbation he may confirm the industry and ambition of the author, and excite the emulation of his companions.

Though the time and labour requisite to examine the themes of a class, which of late years has amounted to nearly two hundred students, be considerable, experience and habit enable the teacher to execute this work more expeditiously than might at first sight be believed. A few hours in the evening during the latter period of the session, are sufficient for the examination of as many themes as can be publicly discussed the following day. A slight perusal of many of them is all that is necessary to perceive their general defects or merits, and the facility which every teacher may acquire in this sort of criticism, has enabled him to make his remarks useful, even when the theme is not publicly read. Referring to certain technical marks previously explained, indicative of digression, redundance, repetition, obscurity, defective arrangement or faulty epithets, which are put on the margin, the student is directed to those parts of his theme which require farther attention, and to the general nature of the defects which have been noticed. And if he has any doubt regarding the import of these technical marks, he has every day an opportunity of becoming acquainted with the principles of criticism, which regulate the opinion of the professor.

It must be acknowledged that the correction of themes in this manner, and, particularly, the exposure of defects, so as not to give offence, is a matter of considerable delicacy, and requires some prudence. While we see so many instances of this undue predilection in those of riper years, young persons may be readily excused for thinking too highly of their own performances, and they are apt to be disappointed and discouraged upon discovering imperfections, where they were not expected. In such circumstances, the professor must touch their failings with a gentle hand, in the spirit of parental kindness and forbearance. The earliest buds of spring are easily affected by the inclemency of the atmosphere, and harsh remarks, particularly when delivered in a forbidding and authoritative manner, might prevent altogether the farther effects of such useful exercises. The instructions and admonitions, therefore, of the teacher, should fall upon the tender minds of youth, like that gentle rain on the new-sown fields, which communicates both nourishment and vigour. When he, in this way, lays open to youth the sources of mistake and of error, and smooths the access to the sciences, their candid and ingenuous minds readily yield to salutary instruction. It is on such occasions, when their minds are rendered attentive and docile, that he has it in his power to reach the latent springs of action, to give young minds a favourable direction, and to do much more good than could be done either by ingenious lectures, or by severe remonstrances.

The most difficult part, perhaps, of the professor's business, is the treatment of the more faulty exercises. Were he to expose them in the unqualified terms of disapprobation which they may possibly deserve, he might ruin every chance of being useful to their authors. He must be satisfied, therefore, with overlooking at first some of these faults, and neglecting no opportunity of encouraging the student to do better. The approbation which he bestows on meritorious exercises is to many a sufficient reproof, and were he to add a full exposure of defects, alienation and aversion from study would probably be the immediate consequence. The teacher, therefore, as far as he is warranted by prudence and ulterior views, must mingle some approbation with his censure, and lay hold of every thing that can afford encouragement. On no account must he lose that influence which he possesses over the minds of his students, in the use of which stands his only chance of bringing them within the reach of improvement.

This regular method of appreciating the merits of themes, in a class of philosophy, has not been much followed; and it may perhaps appear still more novel and hazardous to commit the determination of the merits of themes to the students themselves. Yet, according to the plan of conducting the business, this plan is absolutely necessary. With all the time and attention the teacher can bestow on so numerous a class, and with all the expedition acquired by long

practice, he cannot possibly accomplish the examination of all the themes; and yet, unless they are all regularly examined and brought into public notice, the attention of those students whose exercises are overlooked, will soon become relaxed, their spirits depressed, and their feelings irritated. If our essays pass without notice, they naturally ask, why need we give ourselves so much trouble in composing them? The whole themes, therefore, must be examined, or the plan must be given up.

This situation has suggested a method of review, of which much use is made in the logic class, which not only removes that objection, but brings with it incalculable advantages which cannot be obtained in any other way. When the themes are ready for examination, the professor makes choice of ten or twelve students, most distinguished by their abilities and progress, and to them are committed the review of such themes as he cannot himself overtake. These are, in the language of the class, called examiners, a less assuming title than that of critics or censors: to each of them a certain number of themes is committed, for which of course they are accountable, and which they are required to read over carefully, to examine in every part, that they may be able to appreciate their merits, and to give in a report in the form of a written criticism attached to the theme, and signed by the examiner. When the theme and the criticism come to be reviewed by the professor in the class, unless he finds something particular or

exceptionable in it, he reads publicly the parts of the exercise on which criticisms are made by distinct references, makes such observations upon them as he finds necessary, and returns the theme with the criticism to the author. If the criticism does not give satisfaction, a method is pointed out, to be afterward explained, by which both the theme and the criticism are brought again under the inspection of the professor.

This mode of appreciating the merit of themes, in a philosophy class, may appear unsatisfactory or objectionable, but experience has sufficiently shown, that many advantages are derived from it. It has always happened, I believe, in most public schools, that the more advanced students, in some way or other, have given assistance to inferior scholars. This method was practised here long before the names of Lancaster or Bell were known to the public. The management of such assistance is no doubt somewhat delicate, and the advantages connected with it depend a little upon the experience and prudence of the teacher. Were not the examiners subject to strict discipline and control, the practice, so far from being useful, might be extremely pernicious. Ignorance, conceit, partiality, and petulance, on the part of those juvenile assistants, might give occasion to disappointment, chagrin, and irritation, in the minds of such as conceived that their exercises had been unjustly criticised. But with the precautions that are taken, these disagreeable effects are al-

together prevented. The examiners are publicly and solemnly appointed to their office, which is considered as highly honourable; and before they enter upon it, they are taken bound to discharge it according to the instructions which they receive, from which they are made to understand that there must be no deviation whatever.

The examiners are first of all expressly prohibited from allowing the themes committed to them to pass into the hands of others, and also from taking any assistance in forming or in expressing their judgment. Did they not strictly observe this rule, occasion might be given to the circulation of remarks, and conversations among the students offensive to the authors, while, at the same time, the examiners would be prevented from exercising their own judgment, by mendicating the opinions of others.

Again, the examiners are required to read over the whole theme committed to them, for the express purpose of fully comprehending its general outline. They are next to give an account of the method in which it is conducted, and the particulars which follow in their order, from the beginning to the end. Then, they are to apply the rules of criticism which belong to that description of theme, and to determine how far it has been executed according to the instructions given, and the end proposed, whether digressive matter has been introduced, or any thing of importance omitted.

When they have exhausted their critical powers upon the matter or substance of the exercise, they are next desired to direct their remarks to the arrangement of the sentences, the choice of the epithets, the propriety and the use of figurative language. Finally, they are instructed not only to report faults and defects, but, also, to point out those parts of the essay which best deserve to be read publicly in the class, that the author may be gratified with his success, and also that it may prove an encouragement to others.

The examiners are farther directed, at the time appointed, to deliver to the professor the themes, with the criticisms annexed, containing distinct references to those parts of the performance which have given occasion to their remarks; and also to make use of the technical marks already alluded to. In the discharge of this duty, there is one rule absolutely indispensable, and which is never allowed to be violated with impunity, viz. the criticisms, however just, must be expressed in liberal and becoming terms, with that diffidence and candour which are due from those who must be conscious of many defects and imperfections in their own performances. It is farther understood, as an obligation binding upon the whole class, that no mention whatever be made out of doors, of any strictures which may have been made on the themes by the professor or by the students, and it is distinctly explained, that, in case of such an offence being discovered, the individual convicted

can take no part for the future in the public business of the class, or receive any prize or mark of distinction, to which he might otherwise have been entitled. Politicians may, no doubt, smile at this humble code of academical jurisprudence; but it would be well for the public that laws of higher authority were as regularly observed, and as seldom violated.

The advantages derived from this mode of criticism suggested the idea of extending them to all the students in the class, and of affording to every one, in his turn, an opportunity for exercising his powers of criticism. This object is easily attained by the interchange of themes prepared for examination, and by committing to each student the exercise of one of his class-fellows for the purpose of criticism. This scheme is not put in practice till near the close of the session, when the experience which the teacher has acquired of the abilities and progress of his students, enables him to distribute the themes in such a manner as to render the competition fair and equal. He makes the strong enter the lists with the strong, and those of moderate or inferior abilities to engage with such as are nearly on a footing with themselves.

There are certain exercises, evidently of a superior cast, which the professor reserves for his own inspection, and also such as he perceives abound with defects, and he returns the latter with such remarks as are most likely to encourage, and to direct future efforts. The more distinguished essays, he

often descants upon at great length ; and draws from them lessons suited to rouse the emulation and industry of youth. In this way, the spirit of emulation is not checked by great superiority of talents being thrown all on one side, and nothing is required from any individual which he is not known to be able to perform. Thus, opposed to each other, with as much equality as can be expected, each student is furnished with the strongest motives to exert his attention and his ingenuity. It becomes a sort of single combat, in the presence of many spectators, and it has been found to produce attention and diligence in many when other motives had failed.

To give full effect to this method of discipline, one step farther has been found necessary. Among so many spirited industrious young men, it may be expected that the author of the theme is not always satisfied with the judgment of his examiner ; and he may, perhaps, be suspicious of ignorance, or misrepresentation, in the criticism. The more the author is conscious of ability and industry exerted in the composition, the more apt will he be to question any fault which has been found. To remove, therefore, every ground of misunderstanding, in a manner acceptable to both parties, and to give encouragement to farther exertions of ingenuity or industry, the work of criticism is continued. The author of the theme is allowed to peruse the criticism, and to return it to the professor with such explanatory re-

marks as he may think necessary; and, on certain more important points, this warfare is carried one step farther. But the professor takes the first opportunity of putting an end to the controversy, by interposing his own judgment on the subjects in dispute, to which the parties, in almost every instance, cheerfully submit. During this not unfrequently amusing conflict, new lights and prospects are discovered, which often conduct these juvenile critics to topics beyond their original contemplations. It is understood, however, that none but points of importance can be admitted to a second review.

The utility and efficacy of the rules by which these themes are conducted have been demonstrated by long experience. Not half a dozen of cases have occurred, for these last fifty years, in which it became necessary to inflict censure for improper discharge of this duty. Mistaken as the examiners must often be, in their remarks, they almost always express their opinion, such as it is, in modest and inoffensive terms. When any important difference has occurred between the author and the examiner, the professor has ever found it easy to settle it to their mutual satisfaction. Young persons will always prove docile and reasonable, when they feel that they are treated with candour, with kindness, and without any undue partialities. Esteem and confidence open the minds of ingenuous youth, and keep alive a sense of obligation and of duty; at least, this has always accorded with my experience.

Finally, the method of conducting the themes and criticisms of the first philosophy class, is highly beneficial, both to the authors and examiners; and has been found, from experience, an excellent expedient for calling forth the intellectual energies of the student. There are few situations in which young men can be placed more favourable to application and industry. Their interest and honour combine with the exhortations of the teacher, in disposing them to an animated discharge of their duty. The authors of the themes compose them under the impression of their being subjected to a strict review; the examiners employ their utmost efforts to discover imperfections and defects; and the teacher himself must acknowledge, that, by thus watching over, and directing, this intercourse between his students, he has derived much experimental instruction in the proper manner of conducting the business of education.

Such an account has now been given of the nature and object of the themes executed in the logic class, and also of the method of determining their merits, as, it is hoped, may enable any teacher, who approves of the general plan, to put it in practice as far as circumstances permit. It is not to be understood, that all the subjects of themes which have been mentioned are discussed in one session. The variety here given is intended merely to show, that the sources from which the labour and exertion of the students may be drawn are almost inexhaustible. Nor is it

strictly necessary that the themes should always be prescribed in the same order in which they have been here explained. The teacher must regulate his conduct in this respect according to circumstances, and prescribe more or fewer of one kind or another, as he may see fit.

ON THE INSTITUTION OF PRIZES.

THE objections sometimes made to the use of emulation, in systems of public instruction, are either founded on ignorance, or on an injudicious application of that most active and animating principle. Of all the faculties and desires with which the human being is endowed, no one seems more capable of ministering to his improvement than that under our consideration. At every period of life, and in every rank of society, its influence is manifest in the most unequivocal manner; prompting the man as well as the boy, in the cottage as well as in the senate and in the field, to engage in competition with his fellows, regardless alike, in most cases, of the mere prize which calls him to the list, and of the labour by which it is to be obtained.

The principle of emulation, indeed, seems intended by the great Author of our frame, to supply the want, or to make up for the weakness, of other motives to action. The love of knowledge, for example, cannot create exertion, until the pleasure attending that acquisition has been, in some degree, experienced. The sense of interest too, and the feeling of duty, are often not of very powerful efficacy in the youthful mind. The prospect of distant advantage makes but a faint impression, when counteracted by the seducements of pleasure, or by the example of

idle companions; but the spirit of emulation overcomes all obstacles, and supplies all deficiencies, animating the student to the most arduous attempts, and sustaining his perseverance amidst the severest labour.

Why, therefore, should not the public teacher, who has so many difficulties to encounter, avail himself of the advantages with which he is thus supplied, and follow out the path so clearly delineated to him by the finger of nature? It is, no doubt, considered by some as derogatory to the dignity of science, that its precious treasures should be obtained indirectly, and not sought for, purely and solely, on their own account. Others again maintain, that to excite emulation among young men at college, is only to stir up amongst them jealousy, envy, and a thousand similar causes of irritation.

It may, indeed, be admitted, that the practice of giving prizes, which has long subsisted, in one shape or other, in many of our seminaries of education, has not always been regulated by just views. In the first place, they are commonly proposed to students who have distinguished themselves by genius or proficiency, and are already possessed of academical honours. Few prizes are proposed to under-graduates; and thus the great body of the students, including those who stand most in want of excitement, are altogether shut out from the operation of that powerful feeling, which so frequently sustains the youthful

spirit in the pursuit of excellence. Again, the greater number of the prizes, proposed in our seats of learning, are confined to single essays, which are written on certain occasions, on determinate subjects, and according to fixed rules; while no means are employed, or, indeed, can be successfully employed, to ascertain whether such productions be actually the works of the individuals in whose name they are presented.

To be productive of general utility, the principle on which prizes are awarded in a college must rest on a very different foundation from that now alluded to. The influence of the system must be felt throughout the whole academical establishment, extended to every description of students, and modified according to their age, progress, and other circumstances. The honours attending it, too, must be bestowed on such a principle as to come more or less within the reach of every degree of talent and industry, and to excite hope and expectation in every breast. None must have reason to consider themselves excluded, but such as exclude themselves, by idleness or improper conduct. Nor must these rewards be conferred for single efforts, or upon occasional instances of success. They must be so distributed as to be considered the reward of habitual industry, combined with talent—of regular and spirited exertion, in every part of the business—of general merit and eminence, in the ordinary exercises of the class—and also of improvement in the habits of composition. The great object of the teacher ought to be to carry

his pupils so far; and, thus far advanced, they will find themselves at once prepared and inclined to go farther.

The number of prizes in any class must, no doubt, be, in some degree, proportioned to the number of competitors; though this, for obvious reasons, cannot be done with perfect exactness. There must be a step within the reach of every individual; and the partialities of self-love may sometimes induce the pupils to place this higher than it would be fixed by the judgment of the master, and thus occasion unavoidable disappointment. In the case of literary competition, the maxim of Virgil cannot be strictly adhered to, "*Nemo—non donatus abibit;*" for it is the success of some, and the defeat of others, which give the interest and struggle of which the teacher here avails himself, to further the progress of his students. One point however must be fixed, as far as the nature of the thing will permit, which is, that every individual shall have reason to be satisfied, that the honour for which he is a competitor will be awarded with the strictest impartiality.

The institution of prizes, according to the principle now acted upon in this university, was introduced about forty years ago. Before that period, one or two prize-essays were occasionally prescribed, with the restrictions and conditions which usually accompanied them in the few cases where they were to be found in similar establishments of education.

Nothing farther had yet been attempted. It occurred to some of us, that this mode of procedure was little better than a total exclusion of the principle of emulation from the business of education; while its powerful operation was acknowledged in every other department of human pursuit. It is with much satisfaction, that I can add my name to those of my late much respected colleagues, Mr. Richardson, professor of Humanity, and Mr. Young, professor of Greek, who heartily concurred with me, in laying the foundation of this institution. The plan, of which we had privately arranged the outlines, was first realized in our own classes, and was, indeed, for some time, confined to them. Experience, however, not only confirmed our expectations, but soon recommended our example to others in the university. The principle of action, which we had brought into play, speedily manifested its good effects, by rendering our pupils more regular in their attendance, and more eager in their endeavours to excel, and also by infusing a stronger spirit of industry and application.

In a short time, as has just been observed, the system now under consideration was introduced into all the other public classes; and it suggested, moreover, to the *senatus academicus*, the expediency of extending the principle still farther, by prescribing, to the more advanced students, at the end of each session of college, a number of prize-essays, to be executed during the ensuing vacation. Of these es-

says the subjects are very various; being selected from the wide fields of science and literature; and the premiums, as is usual in such cases, consist of gold and silver medals, of books, and, even in some instances, according to the direction of the donor, of specified sums of money: for, I have much pleasure in adding, that several opulent and liberal-minded persons, in token of their approbation of this part of our system, have supplied us with a certain amount of annual revenue, for its maintenance and extension.

For determining the merit of the several essays, a committee of professors is appointed, some time prior to the date at which the prizes are bestowed, who regularly meet to hear them read, and who, afterwards, without knowing the names of the authors, decide which are entitled to the respective premiums. The first of May, the usual termination of the session, in the philosophical department, is the period fixed for the public distribution of the premiums to the successful candidates; and this anniversary now exhibits one of the most interesting spectacles that can well be imagined, being attended not only by the members of the university, but by a great number of clergymen from the town and neighbourhood, and by many country gentlemen. On these occasions, some suitable portions of the successful essays, in prose or verse, are read by their authors; thus affording at once an opportunity to judge of their merits, and an additional incitement to

the great body of the students.—But the object which I have here more immediately in view, is to give an account of this institution, so far as it respects the first class of philosophy.

As soon, then, as this class is fully convened in the beginning of the session, a day is appointed for explaining distinctly, to all the students, the grounds upon which they are to enter into competition for the honours which are to be conferred at the end of it, and for placing before their eyes the scale of merit, according to which their determinations, in that matter, are to be regulated. It is then particularly stated, that the prizes are to be awarded upon a judgment formed, *in cumulo*, of their diligence, proficiency, general abilities, regularity, and propriety of conduct. They are informed that those students who are most distinguished in the whole business of the class, and throughout the whole course of the session, are to stand highest on the list of successful candidates.

The field of competition being thus defined, and the standard of merit established, the young men are requested to keep their minds steadily fixed upon the one and the other; being assured that, in the scale which measures the latter, there are several degrees, and that it is in the power of every one of them to fix his name on it, somewhere between the two extremes. In order, too, that these enviable honours may be more accessible to all, and the competition

made as equal as circumstances permit, the class is divided into *seniores* and *juniores*; it being understood that such of the two divisions as occupy corresponding places in their respective lists, possess equal merit, and are entitled to the same honour, in the university.

From the day that this arrangement is made, and the path of competition is clearly marked out, the spirit of emulation begins to work, and continues to operate, in the minds of by far the greater number of the students, until the very end of the session. Though the object at which they aim be still at a great distance, their hopes keep pace with their labours; and often do they breathe, with tumultuous feelings, the ardent wish of Sergestus, in the Trojan games :

“ Non jam prima peto, Mnestheu ; neque vincere certo :
Quamquam, O ! ”

During the progress of such a varied and lengthened competition, many circumstances occur to rivet their minds upon the standard by which their labours are to be estimated. This reference is sometimes made with the hope of success, and not unfrequently with the fear of disappointment. In such circumstances, it is incumbent upon the professor to afford, as far as he can, the means of judging with respect to the issue of the conflict. Without pretending to the gift of prophecy, he may disclose, what it is

chiefly of importance they should know and constantly remember, namely, that, other things being equal, those will be most successful in obtaining prizes, who are most deeply interested in their present business, and who have the greatest pleasure in performing their various exercises. He may tell them, that the premiums will certainly fall to the lot of those who receive instruction with patience, and willingly submit to sacrifices, in order to improve by it; of those who, every morning, take their places in the class, with the unfeigned desire of adding to their knowledge, and of making progress in the path of science;—of those who execute every part of their business with punctuality and fidelity, disdaining the miserable shifts and evasions of the thoughtless and the idle;—of those, finally, who, when they have finished the labours of the day, can lay their head upon their pillow, with the soothing consciousness of having done their duty.

One difficult and very important part, in administering the system of prizes, still remains to be stated; and this is the method by which the different degrees of merit are determined; a point in which any error with regard to principle, or suspicion of practical mistake, would completely destroy all the good effects aimed at by the establishment in question. It has been already mentioned, that the qualifications which form the ground of competition for the class prizes, as they are sometimes called, and which are to be distinguished

from the university prizes, are diligence, regularity of attendance, general eminence at the daily examinations, and in the execution of themes, propriety of academical conduct, and habitual good manners; and, on these heads, it is very obvious, a judgment must be pronounced either by the professor, or by the students themselves, as no others have access to the requisite information.

It may be imagined, at first view, that the office of judge would be best performed by the professor; but, after long experience, and much attention to the subject in all its bearings, I am inclined to give a decided preference to the exercise of this right as vested in the students. Were the professor to take this duty upon himself, it would be impossible, even with the most perfect conviction, on the part of the students, that his judgment and candour were unimpeachable, to give satisfaction to all parties: while, on the other hand, were there the slightest reason to suspect his impartiality, in either of these points, or the remotest ground for insinuation that he gave undue advantage to any individuals, in bringing forward their claims to the prejudice of others, the charm of emulation would be dissolved at once, and every future effort among his pupils would be enfeebled.

Students are naturally very jealous with regard to every appearance of favour or partiality in the conduct of their teacher. The caprices of an ambitious

mind are easily provoked; they are not more reasonable in their nature than those of the lover; and, in the circumstances of which we are now speaking, the expressions of the professor, whether of approbation or disapprobation, are watched with keen and interested eyes, by all who have engaged their feelings in the competition. Indeed, the incidents, unavoidable in the practice of teaching, which have been known to excite suspicion, are truly amusing, and, at the same time, full of admonition to every teacher. If he speak to one student, and not to another, if he examine one a little longer or shorter than usual, if the remarks made on a particular essay seem to occupy too much or too little of his time, if approbation or censure be expressed with coldness or with more than ordinary warmth, the more jealous feel their minds tortured with apprehension that they are wilfully overlooked. Even more trivial occurrences sometimes prove the occasion of alarm. If an individual happen to be examined oftener than the rest, there are some who consider such an event as a mark of favour, while others view it as a plot to expose his ignorance. It may be remarked, in passing, that, to prevent such suspicions, and to do real justice to all, the professor keeps before him a catalogue of his class, and puts a mark at the name of every student who is examined, or whose exercise is read; by which means, although they are not called upon in any regular order, every one is ultimately placed on the same footing as to his public appearances.

But even this precaution does not always preclude unpleasant surmises.

To return, however, to the mode of determining the prizes in the logic class, I repeat, that they are adjudged by the students themselves, restricted by certain rules laid down for that purpose; and, as this method of decision has been regarded by some as objectionable, it may be necessary to explain it a little more at length.

The indispensable qualities of good judges, then, are a competent knowledge of the grounds upon which their judgment is to rest, and a firm resolution to determine on the matter before them with strict impartiality. It is presumed that the students, in these respects, are sufficiently qualified. They are every day witnesses of the manner in which the business of the class goes on, and have, accordingly, the best opportunities of judging as to the merits of their fellow-students; they have it in their power to observe the regularity of their attendance, and the general propriety of their conduct; they hear the questions which are put, with the answers which are given; their various themes are read aloud, and observations are made on them from the chair. They have likewise an opportunity of comparing the respective merits of all the competitors, in the extemporaneous exercises of the class; and they, no doubt, frequently hear the performances of one another canvassed in conversation, and made

the subject of a comparative estimate. Besides, as every individual is, himself, deeply interested, it is not possible but that he should pay the closest attention to what is going on around him; whilst he cannot fail to be aware that he, in like manner, is constantly observed by others, and subjected to the ordeal of daily criticism. In truth, the character, the abilities, the diligence, and progress of students, are as well known to one another, before the close of the session, as their faces. There cannot, therefore, be any deficiency as to means of information, to enable them to act the part of enlightened and upright judges.

But they likewise possess the other requisite for an equitable decision; for the great majority have really a desire to judge honourably and fairly on the merit of their fellows. The natural candour and generosity of youth, the sense of right and obligations of justice, are not yet so perverted, by bad example and the ways of the world, as to permit any deliberate intention of violating the integrity on which they profess to act, or any wish to conspire in supporting an unrighteous judgment. There is greater danger, perhaps, that young persons, in their circumstances, may allow themselves to be influenced by friendship or personal dislike, rather than by the pure and unbiassed sense of meritorious exertion, or good abilities; but, on the other hand, when an individual considers of how little consequence his single vote will be among so many, it is not at all

likely that he will be induced to sacrifice it either to friendship or to enmity. There are, however, no perfect judges in any department of human life. Prejudices and unperceived biasses make their way into the minds even of the most upright of our fellow-creatures; and there can be no doubt that votes are sometimes thrown away, or injudiciously given, by young students in the logic class. Still, these little aberrations are never found to disturb the operation of the general principle on which the scale of merit is determined, and the list of honours filled up.

Though the professor takes no immediate share in this business, by giving his vote, his habitual conduct, and the occasional expression of his opinions, have no small effect in forming the judgments of his pupils, and in keeping them from misapprehension and prejudice. Indeed, the maintenance of this salutary but imperceptible influence is an object which he preserves in view, from the beginning to the end of the session. On the day when the prizes are first announced to the class, it is solemnly impressed upon the minds of the young men, that the utility of the institution depends wholly upon the purity and impartiality with which it is administered, that it rests almost entirely with themselves whether it is to prove highly beneficial to the cause of good education, or to be rendered useless and positively hurtful; and that they individually have the deepest interest in the impartial direction of the principle upon which

the system is founded,—a fair and open competition. On every subsequent occasion, too, when any reference is made to the institution of prizes, it is uniformly held up as an essential branch of college discipline, and as intimately connected with the success of education. With respect, again, to the ultimate determination and adjudgment of these honorary tokens, the students are expressly prohibited from indulging in idle conversation with one another, and particularly from soliciting or receiving any promises of support. Such as are found to disobey these injunctions are considered as academical traitors, viewed with contempt and reproach; and, if the fact be proved against them, they are subjected to a forfeiture of their privilege as voters, and deprived of the honours which they themselves may have otherwise deserved.

The habit of viewing the institution in this light, and hearing it constantly spoken of as a matter of the first importance, naturally creates, in the breasts of students, a species of reverence for the thing itself, and a chivalrous feeling of honour with regard to the function with which they themselves are charged. There are very few, indeed, who are not seen to despise every thing unfair in the competition, as well as in the exercise of their suffrage towards their class-fellows; and it is a general remark that those who display most diligence and spirit in the prosecution of their studies, are the most intelligent and honourable in appreciating the merit of

others. It is only the idle and dissipated who are found to disgrace themselves by incorrect opinions, in awarding those honours to which they themselves have no claim.

The nearer the time approaches on which the determination is to take place, the students are more likely to be influenced by some of the deceitful feelings to which I have alluded, and to allow their passions to interfere with their better judgment; on which account, an opportunity is taken to impress upon their minds, once more, the principles which ought to regulate the vote they are about to give, and to divest them of every undue prepossession relative to the several candidates. When the day arrives, the professor, deeply interested, as he cannot fail to be, in the business upon which they are going to enter, addresses them in terms of affection and kindness, representing to them, in the strongest language which he can employ, the importance and sacredness of the decision in which they are immediately to bear a part. In particular, he solemnly informs them, that they must not hope, merely on account of their youth, to escape the imputation of rash or partial judgments; he reminds them that they are moral agents, and, already, as strictly accountable for actions of which they have a complete knowledge, as ever they will be, at any future period of their lives; he states to them, that to deprive a fellow-student of a prize, to which he is fairly entitled, is not only an act of gross injustice, but of cruelty,

which cannot be palliated by the plea of thoughtlessness; assuring them that a student of emulation and proper spirit will consider it a greater injury to be robbed of well-earned honour, than to be subjected to any other species of privation. He even proceeds farther; for, addressing himself to the reverential and pious feelings, inherent in generous minds, he thinks this no unsuitable occasion to remind them that they act under the immediate inspection of that Omniscient Being, who cannot look upon crimes of any kind but with detestation and abhorrence. With this preparation, the catalogue is called over; and the question, put to every individual, is expressed in these terms: "Whose name shall stand in the highest degree in the scale of merit, *inter seniores*?" The same question is then put, as to the *juniores*; and it is repeated, until the several degrees in both scales are filled up; upon which the names of the successful candidates are inscribed with acclamation.

Whatever objections may be urged against this mode of adjudging the prizes, in a first class of philosophy, the proof from experience is a complete answer to them all. I have, at least, fully satisfied myself, by the closest attention to this subject, in every point of view. For example, on the evening of the day prior to that on which the determination is to take place, I have sometimes gone over the catalogue containing the names of the students, with the intention of ascertaining how

far a list made out by myself would correspond with the arrangement to be afterwards fixed by the votes of the class; and in no one instance did my judgment, with respect to the first prize, differ from that actually given by the students. In descending the scale, the difficulty of appreciating degrees of merit, where it is less prominent, is, no doubt, considerably greater, and there, small differences of opinion accordingly have sometimes occurred. Upon more minute attention, however, I have frequently found reason to prefer the judgment of the students to my own; and it is certainly highly honourable to the candour and ingenuousness of youth to state that, with few exceptions, neither friendship, nor enmity, nor national feeling, has ever disturbed the just order of determination. With respect to the first prize, indeed, about which the emotions of rivalry and envy are the most warmly excited, it is often awarded to strangers, in preference to friends and brothers, and to English, Irish, Scotch, and Americans, without any perceptible distinction. It may be thought singular, but it is true, that, in the course of forty years, not above one or two complaints have ever been made to me founded on the suspicion of impropriety, or injustice, in relation to this matter; and there can be no doubt that there would have been many complaints every year, if the determination had rested with the professor.

When the prizes are all voted, the professor brings

the business to a close, by addressing the successful and disappointed respectively, in such terms of approbation, sympathy, and kindness, as the occasion seems to require.

I have now explained, with too much minuteness, perhaps, the method of conducting the first studies of those who enter upon a course of philosophical education in this university. The great object is to combine the communication of such elementary knowledge as may seem necessary for assisting the subsequent pursuits of the students, with a system of exercise, calculated to form, in their minds, those intellectual habits which are indispensable at once to the cultivation of science, and to the business of active life. And I have no hesitation in adding, that every system of public education which does not proceed on that principle, and embrace those means of improvement, is greatly and radically defective.—It is hoped, too, that the manner of conducting the practical business of the class is calculated, in some degree, to infuse into the minds of students such spirit and emulation as will sweeten labour, and stimulate to the highest degrees of exertion in performing the tasks assigned to them. It is farther claimed for this plan of conducting philosophical education, that it secures many of the advantages of a private, or domestic education, while it obviates some, at least, of the evils which are supposed incident to a public one. I do not here mean to enter into a comparison between private and public

instruction, but merely to observe, that the principal advantages of each may, to a considerable extent, be united, without involving any sacrifice of either.

For instance, in this mode of education, a close connexion is established between the private studies of the evening, and the public exhibitions of the student on the following day. It is understood, as a solemn stipulation entered into, betwixt the professor and his pupils, at the commencement of the session, that a certain portion of time shall be set apart, every evening, to be employed in preparing for the following day. For the faithful employment of this time, the students are held strictly responsible to their teacher; and, from the daily examinations, as well as from the written exercises, which, during the first three months, are required almost every day, he knows exactly what preparation has been made, and whether the preceding evening has been properly occupied. Whenever, also, he perceives, in any individual, symptoms of failure, or relaxation, he puts the question directly, in the presence of the whole class, how the evening was spent, and demands a specific answer. When, again, in the latter part of the session, themes are prescribed, which require five or six days for their execution, the students are requested, when half that time is expired, to produce their essays in an unfinished state, that a judgment may be formed of the progress which has been made. This expedient is intended, of course,

as a check upon the idle, to secure their application, in the intervening space; and, chiefly indeed, to prevent all the students from trusting, as young persons are very apt to do, to a hasty preparation at the last moment. In this way, the professor exercises a superintendence over the private studies of his pupils; directs, to a certain extent, their course of reading; and possesses, in no small degree, from daily scrutiny, the means of checking and stimulating the thoughtless and the indolent, even when they are out of his sight.

It is another good effect of this system, too, that it places the students in such circumstances, with regard to the sense of shame, and respect for character, that they stand nearly as much in awe of one another as of the professor, and are impressed, in both cases, with a corresponding responsibility, as to improvement in their studies, and general good conduct. Their public appearances are made, every day, in the presence of the whole class; and they know that, at a period not very distant, much will depend upon the opinion which shall have been formed of their regularity, attention, and progress. Whilst engaged in study, during the evening hours, they naturally look forward to their appearance next day, in the presence of a numerous band of their fellows, eagerly exerting themselves in the same field of competition, and of a teacher zealously interested in their success.

These circumstances combined, constitute perhaps a stronger and more natural species of restraint on the minds of ingenuous and spirited young men, than that which arises from the watchfulness of private tuition; and are certainly better suited to prepare the pupil for the active business of the world, where he will have much competition to encounter, and where he cannot always avail himself of the assistance of a tutor. That plan of instruction is unquestionably the best, which has the most direct tendency to make the student instruct himself; to put him in the proper track for acquiring knowledge, to inspire confidence in his own exertions, and to lead him to take pleasure in the activity of his own mind. When these objects are gained, the most valuable and the most difficult part of education is accomplished.

It will occur to most readers, as an advantage resulting from the system of discipline now explained, that it must obviate, in a great measure, the effects of bad example so commonly deplored wherever there is a concourse of young persons in a large public seminary. Perhaps the charges of vice and idleness, brought against such schools, are greatly exaggerated; and it is very certain, on the other hand, that these evils, viewed with a reference to youth, are not confined to places of public education. I have no intention of repeating, in this place, what has already been frequently advanced on this important subject, that, as boys cannot be shut up all their lives, and must meet with vice in their

passage through the world, it is of little consequence whether they become acquainted with the ways of men a year sooner or later; that there are vices, perhaps equally dangerous, to be encountered even under the paternal roof, notwithstanding every practicable degree of watchfulness; and that the evils attending a public education, as they are more easily discovered, so are they more easily corrected.

It is admitted, that there are dangers to be incurred, wherever a number of young persons are gathered together, but it is hoped that the constant employment and superintendence secured by the method of philosophical education adopted at Glasgow, go a great way to provide an antidote. At all events, it is certainly a better expedient for correcting vice and irregularity in colleges than that which prevails in some universities, viz. the appointment of officers for the detection and punishment of misdemeanours; which functionaries, as they possess no means of preventing improper conduct, can only act the part of spies, and must expect to be regarded with the dislike and suspicion which attach to informers. It is idleness and want of interest, in the pursuits in which they are engaged, which most commonly lead to irregularity on the part of the students. Take away these, inspire a love of study, create industrious habits, and you will at once supersede the invidious office of proctor, and render obsolete all penal statutes. Occupy the student's time,

and use the means to make him feel the spirit of emulation, respect for his own character, and reverence for his teacher, and you will greatly abridge the labour of discipline, so far as regards regularity and decorum. These are the principles upon which we endeavour to act in this university; and it is creditable to the characters of youth, to have it to observe that they are, in most cases, found to be completely efficacious.

After the minute detail which has been given of the public and private business of the first class of philosophy, I am afraid it may be thought by some altogether an utopian scheme, and that neither the teacher nor his pupils can be supposed to execute the parts therein assigned to them. Formidable, however, as the task may appear, at first sight, it will be found, on nearer inspection, that nothing is required of either which demands more than ordinary talents, zeal, and industry.

The duties of a professor are, however, more laborious and extensive than is commonly imagined; and they cannot be properly discharged by devoting one, or even two hours a-day to their performance. He has, or ought to have, a definite object in view; and this object ought to regulate his hours of teaching in public, and his labours in private. A very great difference of opinion seems to have taken place on this subject in modern times, compared with the views of the ancient philosophers; for, while the latter are

known to have spent many years in patiently training their students in the mysteries of their profession, the former have brought the business of philosophical education within the compass of a nut-shell, by confining their labours to the delivery of a lecture, once a-day, during a short session. The practice now mentioned is, to say the least of it, most irrational and ridiculous. Should we not laugh at the musician who should propose to teach the harp by giving a lecture daily, during the winter months, without once making his pupils touch the strings of the instrument? But the attempt to teach a class of young men to think and reason, and more particularly to form in their minds the intellectual habits upon which reasoning, speaking, and writing depend, by means of lectures only, is just as absurd and ridiculous.

After all, the time and labour necessary for conducting the business of the first philosophy class, in this college, are by no means so considerable as might at first sight be supposed, and are certainly not more, than a man of suitable talents, directing his whole time to his professional duty, may be able to perform. During the first three months of the course, the exercises are of such a kind, that, by simply hearing them read in the class, the professor, from his knowledge of the subject, and his experience in the details of teaching, can, at the moment, make such remarks, and give such instructions, in relation to them, as appear requisite; and it is only in the latter part of the

course, when the essays are longer and more difficult, that it becomes necessary to devote an additional or third hour every day, for the purpose of reading and criticising.

ON THE CONDUCT OF STUDY DURING THE VACATION.

THERE is only one term, each year, in the university of Glasgow; which term continues more than seven months, in some classes, and six months in others; with the interruption of a few occasional holidays. The vacation, therefore, occupies a considerable portion of the student's time; and it is part of the duty of the professor to take the charge of his education, till he enter the succeeding department in the academical course. He cannot, indeed, give his personal presence; but he may be present in the spirit of his instructions, which ought to be of such a kind that the student may receive some assistance from them, in all his difficulties.

The young man is therefore warned that he is not to consider the vacation as a cessation from labour, but a termination only of the public instruction of the teacher, and of the regular daily business of the scholar. A vacation, properly and judiciously occupied, far from being an interruption, is, in fact, a necessary part of a public course of education. The great object of all the means employed in education, is to qualify young men for acting their part, in the various situations and conditions of life into which they may be afterwards thrown. Now, this important end cannot be effected by keeping the students constantly under the trammels of academical discipline. They ought, oc-

casional, to be accustomed to voluntary direction in the course of their studies; and opportunities ought to be afforded of putting in practice the instructions they have received, and of confirming the habits in which, it is to be hoped, they have made some progress.

The manner, indeed, in which public studies are conducted during term, renders a vacation absolutely necessary. The frequency of lectures, examinations, and themes, and the limited time the students are allowed to go through them, render it impossible to give to each part of the business that full attention and consideration which it requires. Many subjects have been explained, in the lecture, which the student had not sufficient time to examine, and which must have been imperfectly understood. It must, therefore, be both useful and acceptable to him to obtain leisure for reviewing, in detail, the various doctrines of the lectures, and for obtaining more satisfactory knowledge in those parts of the subject in which he feels himself deficient.

Before the student enters upon his vacation studies, there are, however, some previous arrangements to be made. He must consider what portion of time he can afford to devote to his studies; and he must distribute it among them, according to their importance or difficulty. He must likewise be careful to draw an exact line betwixt the time appropriated to study, and that which is required for relaxation

or amusement; for, if the occupations of those two portions of time be allowed to interfere with each other, no regular plan of study can ever be accomplished.

When these arrangements are once made, they ought to be considered as sacred and inviolable. The time thus appropriated is devoted to the study of knowledge and virtue; and no encroachment ought to be made on it, on any account whatever. Irregular study profiteth little, and is often indeed hurtful. The desultory reader frequently deceives himself with the semblance of study, without the reality. Inconstant, ill-regulated minds are ever changing their occupations, ever making and breaking their resolutions. Thus, trifling every day with themselves, the power of self-determination is weakened, and those abilities and opportunities are lost, which might have led to honourable distinction. In such circumstances, the student never, in fact, overcomes the difficulty of beginning new habits; and never advances to that facility and dexterity of exertion which is rewarded by success.

No habit ought to be more assiduously cultivated by young persons than that of passing quickly from amusement to study, or from one occupation to another. Valuable fragments of time are, for want of this, often lost. To put a stop to one train of thought, and immediately to begin a different one, is

a most important habit, in the management of business and of study.

When the student has the full command of his time, during the vacation, he should dedicate the morning to study, in preference to any other part of the day. The morning, it has been said, is a friend to the muses. Experience has sufficiently shown, that with the exception of those who have early formed contrary habits, the faculties of the mind, after the repose of the night, are, in general, more vigorously and successfully exerted. But, were there no other reason for selecting the morning for study, it is a sufficient ground of preference that it is less exposed to avocation or interruption. In truth, when the morning is lost, the whole day is in danger; and the loss of one day leads to the loss of another. The habit of studying in the morning has also this additional advantage, that the student may thus carry on the principal parts of his business, upon a visit, as well as at home, without much interruption.

These familiar matters being thus adjusted, the student is directed to consider what ought to be his principal occupations; the order in which he intends to prosecute them; and the definite portion of time to be allotted to each. The great objects of his studies, during the vacation, are the farther cultivation of the intellectual habits of reading, meditation, and composition. It is not to be understood that any

one of these exercises can be well performed without the other—that a person can be said to read without thinking—or that he can think long without composing—but that each of these exercises are, proportionally, to occupy a separate portion of his time.

The student is directed to begin with a continuation of his classical reading, and to leave no part of this delightful region unexplored. It is now he is to reap the fruit of his early and severe labours, in acquiring a grammatical knowledge of the ancient languages. The utility of classical learning is so universally acknowledged, as a branch of education, that it would be superfluous here to enter upon the subject. The study of the classics should form a part of the business of every vacation; and the student, it is to be supposed, has now the advantage of being able to apply those principles of taste and composition, which he has acquired during the session, to this part of his vacation studies.

The next department of reading, to which he is directed, is that of those philosophical authors, who have written upon the subjects of the course through which he has recently passed. During the session, the student was, in a great measure, confined to the hasty consultation of such parts of their works as had an immediate reference to the subject of the lectures; but now, he has time to read with more composure; and to begin, and continue, a regular study of them, as far as his other occupations will permit. In this

way he enlarges his knowledge of the subjects which he heard discussed at college; he examines and compares what he reads with what he has heard, and is prepared to alter or confirm the judgments which he had formerly adopted. In such a system of reading, it should be his constant aim to follow closely the reasoning of his author, to become acquainted with his manner of thinking and feeling, and to mark the progressive steps by which he arrives at the conclusions to which his principles have carried him.

Another portion of time should be devoted to the study of history. The knowledge which any individual can acquire by his own observation and reflection, bears but a small proportion to what he may derive from others. No man can build up his superstructure of knowledge on his own foundation. He must extend his acquaintance with science to the character and condition of the human mind, and to the various stages in which it is found, in its progress from rudeness to refinement. Such knowledge of the facts and events of history is the basis of the sciences of morals, politics, jurisprudence, œconomics, and law. Some persons have advised the student to begin with ancient history; and, after connecting it with that which is more modern, to proceed, in the order of time, to a detail of the latter. Others recommend to him to begin with the history of his own country; and to proceed to that of other countries, in proportion as their connexion with it is gradually developed. But each individual must fix on the plan of

reading history most suited to the state of his progress and previous attainments, and to his future objects of pursuit. In general, the reading of political modern histories should be delayed to future vacations, when the student may be supposed to be farther advanced, and better prepared to comprehend such subjects.

That portion of the time which is appropriated to general reading, in the first vacation, during the philosophical course, will be most properly employed with histories; travels, voyages, and such other works as treat of nations in an early period of society. Thence may be drawn the elements of the sciences, already mentioned, in their simplest state, before man becomes that complicated, artificial being which he appears in political history. There may be discerned the rudiments of society—the principles in human nature, which dispose the many to be governed by the few—the origin and progress of government, science, and art—the various forms of delegated power, and their effects upon the talents and the happiness of nations. The perusal of such narratives naturally encourages thought and reflection in youthful and inquisitive minds. To this may be added ancient biographical history, which is full of important information. The student should also have always at hand some book of elegant amusement, suited to his taste, to which he may apply, at those times, when he wishes to unbend his mind, after more severe studies.

It is obvious that only a small part of this plan of reading can be executed during the first vacation. The prudence and experience of the student must, therefore, be consulted, not only in the choice of the books which he proposes to read, but also in fixing those resting places, at which he may interrupt his studies at one time, to return to them at another, with the least disadvantage.

But the attention of the student is not exclusively directed to the study of books. He is advised to set apart a portion of his time for reflection on the knowledge which he has already acquired; and the materials which naturally occur for this exercise are, the subjects which have been brought under his view in the course of lectures which has just been concluded. When occupied with hearing these lectures, accompanied by the daily exercises in which he was engaged, he must have marked many subjects, which he was obliged to pass over without sufficient time for due consideration. Some parts of the lectures may have been imperfectly understood; and farther light and assistance may be required from authors who have written on those particular subjects. There is scarcely an important topic in the lectures which may not be selected, as a subject of farther meditation. The student has now time and leisure to make the knowledge he has acquired from others properly his own. He can again bring before his mind the principal subjects of all the different departments of the lectures, and select those which he thinks afford

suitable materials for the exercise of attention and reflection. On some of these subjects, he may employ the process of analysis, endeavouring to discriminate the qualities of complex objects; on other occasions, he may begin with appearances or phenomena, and endeavour to trace them through a connected series, to their cause; or, beginning with the cause, by a similar process, he may explain the phenomena. He may, at other times, attempt the proof of a proposition, and employ his ingenuity and resources, in selecting and applying the arguments which are suited to the subject; or, by an inductive process, may endeavour to establish general laws or causes. By these, and similar occupations, diligently and earnestly prosecuted during the vacation, he will gradually become habituated to the processes of reflection, reasoning, and investigation, and prepared for their application to whatever subject he may find proper or useful.

This review of the lectures is necessary on another account. The student, at the beginning of the next session of college, is subjected to a strict public examination on the subject of his studies during the preceding year; and nothing can better qualify him for that public appearance, than such a review of the lectures as has here been recommended.

The third portion of the student's time, in the vacation, should be appropriated to exercises of composition. He must never forget that the mere acqui-

sition and possession of knowledge is but the one-half of his work, having a reference merely to the improvement and pleasure of the individual; but, it is only by the habits of communication that he can extend the benefits of this knowledge to others. If he has entered with spirit into his business, during the term, and has regularly executed the different themes prescribed, he has only to continue to employ himself in similar exercises, and he must, every day, make farther advances in his habits of composition: for there is no way by which a person can effectually learn to compose well, but by composing frequently. When young persons complain of the difficulty of first compositions, it is because the attempt is made without due preparation. It is an impossible task to compose without previous knowledge and reflection, and without some degree of spirit and industry in the attempt. It remains, then, for the student, with the advantage of the instruction he has received, and the habits he has acquired, to prosecute, according to the best of his judgment, the same kind of exercises in which he has been already engaged.

There are, in particular, two exercises proposed by the professor, to be executed by his students during the vacation, viz. one, on a subject of argumentation and reasoning, another on taste and criticism. These essays are to be delivered to the professor, at the beginning of the following session; and the best in each department is rewarded with a prize,

according to the decision of the committee of examination.

One great advantage the student has, in composing during the vacation, is, that he has full time to subject his specimens to severe and reiterated correction; he can write over and over again, availing himself of repeated amendments, till he has brought his essay nearer and nearer to the perfection at which he aims. It is impossible to lay down any general rule for composition more useful than to bring, at intervals, the subject of the composition under the review of the writer. Till the student can submit to the tedious, and often disagreeable business of frequent correction and numerous copyings, with some degree of patience, his work will not be what it might have been, nor can he ascertain the degree of improvement, in composition, which is within his reach.

"Vir bonus et prudens, versus reprehendet inertes;
Culpabit duros; incommis allinet atrum
Transverso calamo signum; ambitiosa recidet
Ornamenta; parum claris lucem dare coget,
Arguet ambigue dictum; mutanda notabit."

The French critic, Boileau, has advised to put the work even twenty times upon the frame; to polish and repolish continually; sometimes to add; and often to erase.

"Vingt fois sur le métier remettez votre ouvrage,
Polissez le sans cesse, et le repolissez,
Ajoutez quelque fois, et souvent effacez."

The very prospect of such future criticism gives more freedom and indulgence in the moments of first composition, by allowing the writer to follow the natural bent of his thoughts, and to admit the language and expression which the matter suggests, as he knows that he will afterwards have an opportunity of cutting off excrescences and redundancies.

The professor, after having gone over to his students, very fully, the directions here given for the employment of their time, during the ensuing vacation, takes leave of them with an address, reminding them of their mutual intercourse and labour, what they have gained, and what they may lose. With this affectionate farewell, he commits the immediate inspection of their studies, during the vacation, to parents, and those who have the charge of their conduct. Few parents, indeed, are qualified to judge of the proficiency of their children in language and philosophy; and fewer still have leisure or inclination to do so. They can, however, do what may be of much more importance to them, and that without any trouble. When their sons return from college, they may discover, by their conversation, whether or not they have been interested in the objects of their pursuit, and whether they have obtained approbation or been exposed to censure. They must soon discover, from their conduct, whether they prosecute their studies regularly, when no longer subjected to discipline; whether they readily yield to temptations which take them from their business; and, finally, whether they

suffer their amusements to encroach upon the hours set apart for mental exercise and improvement. When parents are possessed of this knowledge, which is certainly within their reach, they alone are accountable, if they do not make use of that authority, for the benefit of their children, which God and nature have placed in their hands.

ON THE SYSTEMS OF EDUCATION ESTABLISHED IN
UNIVERSITIES, AND ON THE MEANS OF IMPROVING
THEM.

As the object of education in all universities, whether of ancient or modern date, is, to prepare young men for discharging the several duties and offices of life, it is surprising that there should be so little uniformity in the means employed for the attainment of that important end. It was to be expected, no doubt, that the character of the age, in which any particular seminary took its rise, as well as the main objects contemplated by those to whom it owed its foundation, should appear impressed upon the scheme of education originally pursued within its walls; but, certainly, it was not less to be expected that, in proportion as knowledge advanced, and the objects of business or ambition assumed a new form, the system of public instruction should undergo a similar and a corresponding change. Such, however, is not found to be the case. On the contrary, in some establishments of this kind, possessing great wealth and antiquity, the statutes of the founder, or the example of former generations, continue to exert a much more powerful influence on the practice of teachers, than any considerations which might be deduced from the extension of science, or even the wants and probable destination of their pupils. So great, indeed, is the difference in

the means and system of instruction adopted in the several universities of Great Britain, that it might, for a moment, appear doubtful, whether the minds to be cultivated were really of the same order, and the professional qualifications to be attained had any thing in common.

To remove the prejudice which subsists against every attempt to improve established systems, we should never forget that the general plan of education was formed according to the state of knowledge, and the prevailing pursuits of the period in which it originated; and consequently that, although it might be perfectly suitable for that particular condition of society, it may prove altogether inadequate to answer the purposes of a subsequent age, possessed of greater information, and a more lofty and varied ambition. The object of Grecian education, for example, was to qualify young men for becoming good members of the commonwealth, by enabling them to acquire such arts and habits, as render their services most available in peace and in war. Among the Romans, again, during the most flourishing period of their government, the main object of public instruction was, to prepare their youth for the business of the senate and of the bar; while, in the ages which preceded the revival of learning in Europe, the scheme of instruction pursued in the universities, was almost exclusively adapted to promote those particular studies and accomplishments, by which candidates for

holy orders were qualified to offer their services to the church.

In the present state of European society, where the several nations have advanced to nearly the same degree of improvement, and where the objects of public instruction must be very similar, there does not seem to be any good reason why the systems actually followed, with the view of cultivating the moral and intellectual faculties of man, should present such a remarkable discrepancy as they are found to exhibit, both in principle and in detail. This observation applies with still greater force to the universities of the same country, where, as the object of instruction must be the same, the means employed for that end, should not materially differ; and yet, as has been already stated, the plan and matter of study, as well as the discipline of the several institutions, vary so much, that it is difficult to conceive that they have been guided in their proceedings, by a desire to produce the same result.

The general course of study in every university, may be considered as divided into two parts;—the under-graduate and the professional;—the former having a reference to that preparatory branch of education, which exercises and strengthens the original powers of the mind, without being directed to any particular pursuit; the latter, as the term imports, being occupied with those more limited in-
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ries which respect the personal views and employments of future life. This distinction is at least sufficiently obvious to form a boundary for the few remarks I have to make, on the methods usually adopted in our universities, in both of these departments of public education.

THE UNDER-GRADUATE COURSE.

IN all our colleges, a considerable part of the under-graduate course is devoted to the study of Greek and Latin; but, in those of Scotland, the attention is not so exclusively confined to the learned languages, as in the universities of the south. We do not, in this part of the kingdom, attach to classical learning that high and almost exclusive degree of importance which is ascribed to it elsewhere; thinking it of greater consequence to the students, to receive instructions in the elements of science, both mental and physical, than to acquire even the most accurate knowledge of the ancient tongues; of which all that is valuable may, it is thought, be obtained without so great a sacrifice of time and labour.

We need not, indeed, be surprised at the exaggerated notions which have been formed, in regard to the value and importance of the ancient languages. They are justly considered as the channels by which science and literature were conveyed to the nations of modern Europe: while the genius and talents displayed in the more celebrated compositions of antiquity,—

in the songs of the poet and the declamations of the orator,—continue to exercise that charm on the minds of the learned, which at first arose, perhaps, from novelty or gratitude. There is, besides, a hereditary veneration among scholars for the works which delighted the illustrious persons whom they have been taught to admire; and which laid the foundation of that immortal fame which has kindled their own ambition, and is valued by them as the highest recompense of human talent and industry.

But the practice of devoting so much time to the languages of Greece and Rome has been defended on other grounds. It is maintained that the knowledge of these tongues affords a remarkable facility for acquiring others: that they present an excellent model for the study of general grammar, and even the most recondite principles of thought and speech; and, moreover, that a good classical education qualifies a young man to use, with elegance and propriety, the vernacular language of his country.

It is impossible to deny that these, and perhaps other advantages, result from the study of ancient literature. It is only to be considered, whether all these might not be procured at less expense of time and labour, and without sacrificing other important objects, which ought likewise to make a part of the under-graduate course. The principles of general grammar, and even the particular structure of any individual language, might surely be sufficiently ac-

quired, without that very minute attention to prosodial niceties which occupies so much time in several distinguished seminaries. I do not object to such inquiries being pursued by those, whose taste and inclination dispose them to indulge in a microscopic examination of that fine mechanism which distinguishes poetical language, and of which the beauties can only be duly appreciated by such as have been accustomed, from long study, to render the various measures and cadences familiar to their ear. I merely question the expediency of imposing upon all young men, whatever may be their talents, their likings, or their destination, the necessity of devoting so large a portion of the most valuable period of life, to a species of occupation which neither supplies a suitable exercise to the mind, nor rewards exertion by the attainment of useful knowledge.

My object in these remarks will, however, be very much mistaken, if it be supposed that I have any intention to undervalue the advantages of a classical education. But I humbly conceive, that if classical knowledge be not ample, it is, in a great measure, useless; and that no time is less profitably spent, than that which is passed in acquiring a mere smattering of the ancient languages. It does not, however, follow, that the literature of antiquity should engross the exclusive attention of young men at college, from day to day, and from term to term, and thereby preclude the study of those more important branches of knowledge which lay the foundation of

professional eminence, in the several departments of active life. The labours of the school-boy should not be allowed to employ the more mature talent of the man; nor should the mere study of Latin and Greek words be permitted to supersede the investigation of modern science, and those sublime researches into the properties of matter and of mind, which have remunerated the labours of philosophy during the last two hundred years.

The business of the under-graduate course ought to comprehend, besides the learned languages, the elements of philosophy in all its branches,—of the science of mind, logic, ethics, geometry, and physics. I speak here only of the elements of those sciences, as alone applicable to the age and acquirements of the student, at this period of his academical life. For it is not to be imagined that any professor will undertake to communicate, in the short time allotted to such pursuits at college, a complete system of principles and deductions, in any one of the departments now specified. A teacher must not expect to carry his pupils, in the course of a few months, to the higher parts of those sciences, which it may, notwithstanding, be proper to put them in the way of studying for themselves. All that he can accomplish, in so short a period, is to open up the path which they are afterwards to pursue, to give directions for their successful progress, and to define the objects which they are to keep in view. By inducing them to employ their intellectual faculties, according

to the plan of diligence proposed, he will enable them to know their own strength; and, at the same time, to acquire the command of a powerful instrument which nature has put into their hands, for the most valuable purposes. For when the habit of investigation is once formed, and the energies of the mind are placed under the control of well-regulated attention, the student becomes his own best teacher, and the important work of education goes on of its own accord, without either pain or effort.

In these outlines, I have arranged the subjects of the first or introductory part of mental philosophy in the following order.

1st. The elements of the science of mind, or, an analysis of the powers of the mind, particularly of those by which knowledge is acquired, followed by an illustration of their several modes of operation, derived from the origin of language, and the principles of general grammar.

2d. The elements of intellectual culture, applied to each respective faculty, and to their mutual co-operation or processes of action: illustrated by the history of logic, ancient and modern.

3d. An analysis of the powers of taste; or, as they are sometimes called, of the internal or reflex senses, of novelty, beauty, sublimity, &c.

4th. An explanation of the means by which these powers or susceptibilities are cultivated; illustrated by the history of the fine arts, and the principles of composition in the department of belles lettres.

5th. The powers of communication by speech and writing; and the means of cultivating these powers, illustrated by the history of the arts of rhetoric and criticism.

These subjects may be supposed to occupy a third or a fourth part of the under-graduate course, and are very properly made to precede the more profound inquiries which belong to ethics and physics. There has, no doubt, been considerable difference of opinion among the learned, as to the nature of the studies which ought immediately to succeed the classics, in the order of academical tuition. Some recommend geometry and natural philosophy, as more suitable to the physical connections of things, where facts lay hold of the mind, before reason can deduce principles or generalize phenomena. In certain universities, accordingly, the students pass from the ancient languages to some one of the sciences which respect matter, and enter not upon the philosophy of mind, logic, ethics, &c. till toward the close of the under-graduate course.

For reasons already stated, I am satisfied that it is more advantageous to begin the philosophical course with the studies which respect the operations

of mind. In all the branches of human knowledge, mind is either the subject or the instrument of research. In metaphysics, ethics, politics, theology, and taste, no progress can be made without a previous analysis of the intellectual and moral faculties; the anatomy of the mind must be studied, before the mental powers can be thoroughly known or successfully exercised; and no one will so profitably employ himself in the examination of the material world, as he who has been accustomed to turn his mind inward upon the course of its own operations, to mark their origin, their connection, and their results.

It is of less consequence, no doubt, to vary a little the order, in which the subjects of study are introduced, than to leave out the most important of them altogether: and it does, I humbly confess, appear to me, that, in the English universities, there is too great a portion of the under-graduate course exclusively devoted to the pursuit of classical literature.

But it is not only the matter of study which engages the attention of him who takes a survey of the present state of university education; the methods also which are adopted in the several seminaries of the kingdom, and which present not less variety than the subjects to which they are directed, claim his serious consideration, and naturally suggest some thoughts on the means of their improvement.

Every one knows that the method of teaching phi-

losophy which is pursued in the Scottish colleges, differs considerably from that which has been long acted upon in the universities of England. In the former, a series of written lectures, composed or compiled by the professors, are annually delivered from their respective chairs; whereas, in the latter, the business of education is carried on almost entirely by means of private reading, and a species of colloquial examinations. In the prosecution of this last method, the college tutor, instead of lecturing, peruses certain authors along with his pupils, explaining particular passages as he goes along, and conversing with them on the doctrines or facts to which their attention has been directed.

Each plan, no doubt, has its peculiar advantages; but it appears to be easily practicable to combine the best parts of each, without sacrificing any thing essential in either. Could this not be effected, I have no hesitation in preferring the tutorial system, limited and restricted as it must be, as infinitely more useful than a mere course of lectures, unaccompanied with examinations and exercises. The leading improvement, then, which I should venture to recommend, is the introduction into the English colleges of lectures, properly so called, to be incorporated, to a certain extent, with their present method of teaching by means of reading and conversation. This addition to their system, so far from obstructing or superseding any of their accustomed processes of intellectual culture, would, I am con-

vinced, both render them more efficacious, and, at the same time, more agreeable to the student. Indeed, the comparatively small number of pupils, and the full command of their time and arrangements, which is placed in the hands of the college tutor, are circumstances eminently favourable to a successful application of the method of teaching I have endeavoured to unfold in the foregoing pages.

The greatest obstacle which we have to encounter, in this part of the island, in following out the details of our plan, by daily examinations, and themes, arises from our very numerous classes, consisting in some instances of nearly two hundred students. In a college, therefore, where not more than thirty or forty generally attend the lectures on mental philosophy and ethics, we have the best reason to conclude that the beneficial effects of this system, would be realized to their fullest extent; that each of the young men would be examined every day on the subjects discussed in the lecture, and that essays would be regularly prescribed on the principal topics thus previously illustrated and brought home to their comprehension. The age, too, of the pupils who enter the English universities, presents another facility for adopting, in such schools, the lecture system, as a means of philosophical instruction. The mind of a youth of seventeen or eighteen is sufficiently mature to follow out a train of reasoning, and to perceive the connexion of a discourse; whereas, in Scotland, there are always a number of students in the

philosophy classes, who are not qualified, either in respect of age or of previous acquirements, for entering upon such pursuits. In every point of view, then, the method of teaching by lecture, examination, and the performance of essays, is fully more suitable to the circumstances of the English and Irish universities, than to those of Scotland; and seems calculated, of course, to produce still greater advantages in the former, than have ever yet been actually realized in the latter.

But, I am aware, it may still be proposed as a preliminary question, whether the method of teaching, in present use, does not answer all the purposes of education, as well as that which is here recommended: whether a careful perusal of select authors, and a subsequent conversation upon them, between the tutor and his pupils, are not employments as likely to improve the minds of youth, as a formal lecture pronounced in their hearing, even when it is made the ground-work of examination, and converted into materials for exercises in composition.

To decide this point, it is necessary to come to an understanding as to what are, or ought to be, the main purposes of education; and I should imagine, there can be no difficulty in admitting that these are comprehended, *first*, in the communication of knowledge; and, *secondly*, in the cultivation of the mental powers, without a reference to any specific acquirement, in literature or science.

With regard to the communication of knowledge, there can be no doubt that, as far as regards classical learning, mathematics, and the higher parts of arithmetic, the only rational method of conveying instruction is to peruse, with the pupil, the best works in these several departments. No man ever thought of teaching a boy to understand Homer, Euclid, or La Place, by means of lectures. But, we are now speaking of philosophical education, as it relates to the science of mind, of morals, and of human life; the principles of reasoning and of taste; the distinction of good and evil, the doctrines of justice, of law and of government; and, certainly, in this wide field, where opinions have so long remained unsettled, and where no authority is permitted to give a final decision, a very different mode of instruction ought to be pursued. It is here, in short, that the lecture system ought to be introduced, as supplementary to that of individual reading.

For instance, it is only necessary to observe that no one writer contains all that the student ought to know, and that every writer comprehends more than it is either requisite or expedient should be laid before him. Our greatest authors, it is well known, wrote, not for beginners, nor with the view of giving a didactic system, but for the learned world at large, and commonly, too, with the intention either of attacking or supporting some particular hypothesis. It is impossible, therefore, to find, in any single work, the elementary statements, combined with those gene-

ral views, on which a philosophical education should be constructed: and thus it necessarily becomes the office of a teacher to read, to select, and to arrange, for the use of his pupils; and, from the stores of knowledge with which his professional studies must be supposed to have furnished him, to bring forward what shall appear best suited to their previous attainments, as well as to the particular object of his course. In drawing up his lectures, in such circumstances, the professor will frequently see it expedient to confine himself to the outlines of subjects, which may be treated by the original author in great detail: he will give, at some length, the history of opinion, on the more important questions which present themselves for discussion: he will call the attention of his pupils to the various stages in the progress of the human mind, from its first attempt at generalization to the accomplishment of a connected system: and, in particular, he will point out the numerous sources of error, whether arising from the nature of certain inquiries, or from the imperfection of human reason, which have at various times materially retarded the advancement of science. Indeed, in many subjects of study, such as divinity, law, ethics, and politics, the history of opinion constitutes the sum and substance of our knowledge. Our inquiries, after the statement of a few first principles, are directed to little more than the succession of truth and error, to the varying forms which they may have assumed, and to the circumstances which have paved the way for their alternate reception. It must then be abundantly evident, that

the perusal of no one work, in these departments, nor, indeed, of all the works, at any one period, would be sufficient for the purposes of instruction.

If, indeed, we shall be allowed to suppose, that the object of the tutor and his pupil is confined to the very limited attainment of knowing what were the opinions of an individual author; of Aristotle, for example, of Bacon, of Locke, or of Reid, on any particular point of philosophy, the plan of education at present pursued is unquestionably the best that could be imagined to gratify their ambition; for, they have only to turn up the chapter and section of the particular work, to examine the argument, and to note down the conclusion. But if, on the other hand, their views extend to the more exalted object of inquiring what are now received as the general opinions, on the various subjects handled so successfully by Aristotle, Bacon, Locke, and Reid, in their respective works—what were the notions which prevailed as to the object of philosophy, and the principles of human knowledge, in the long interval between the first and last of these distinguished writers—what were the discoveries or modes of thinking which led to the several changes of doctrine on these points, as we find them recorded in the history of science, and upon what particular grounds each succeeding theory was ultimately maintained or rejected, it is manifest that all the reading which the pupil, directed by his tutor, could possibly overtake, during the whole time allotted for college residence,



would not enable him to accomplish this end. In short, the reading system of instruction can only be recommended, when the teacher wishes to convey to his students the views of some individual philosopher; and, as such a limited undertaking is altogether inconsistent with the present state of science, it follows, that, in order to realize the first mentioned purpose of academical education, namely, the communication of knowledge, the tutor ought to prepare, from his own stores of information, a course of lectures for the use of his pupils; containing at once an outline which they should endeavour to fill up, and a guide to the best source of materials.

Let us apply these general observations to the actual practice of the schools where the reading plan of teaching philosophy is adopted. The books usually read in the colleges alluded to, as an introduction to the philosophy of mind, are, I believe, Aristotle's *Analytics*, or an abridgment of them in Latin, Locke on the Human Understanding, Reid's *Essays*, Stewart's *Elements*, and one or two other works written on the same subjects, and with the same views. Now, it cannot fail to strike every person acquainted with the character of the publications just specified, that, in many respects, they are quite unsuitable for the purpose of elementary instruction; particularly, as they contain, even in the first parts of them, much of abstraction, generalization, and deep reasoning, entirely beyond the comprehension of the youthful mind. I pass over the *Analytics*, which are

now generally considered as altogether unfit to be used as an introduction to the study of Philosophy. But even the Essay of Mr. Locke is little better calculated for the commencement of a philosophical course. He begins with a very argumentative dissertation on the doctrine of innate ideas, and goes on to explain our notions of power, time, space, infinity, &c. which are some of the most abstract conceptions of the human mind. Dr. Reid, again, in his essays on the intellectual powers, after some very judicious observations on the method of studying mind, proceeds almost immediately to certain hypotheses on the nerves and brain, the phenomena of external objects, and the doctrine of ideas illustrated by the theories of Berkley, Leibnitz, and Hume. The work of Mr. Stewart, too, although entitled Elements of Philosophy, can be considered as elements to those only who have already made considerable progress in the study of mind. It requires only to run over the contents of the first part of his first volume, to be satisfied of this fact. The general and enlightened views which he gives on education, on the art of reasoning, and on the theories of perception, cannot be fully comprehended by those to whom the very term philosophy has never been explained, and who are of course completely in the dark as to the precise objects of all their inquiries.

It cannot be necessary to remark, I should hope, that these strictures have no reference whatever to the general merits of the works now mentioned, all of

which have so materially extended the bounds of science, and done so much honour to their respective authors. Nothing more is meant, than that from the subjects which are discussed, and the abstract manner in which these works are composed, they are not at all suited, as school-books, to the habits and acquirements of those entering on their first course of philosophy.

But, supposing that the works of an individual philosopher, Mr. Locke or Dr. Reid, for instance, were completely calculated for a college lesson; that the matter, the arrangement, and the mode of writing, were, in all respects, suitable to the capacity of beginners, it is clear that pupils taught in this way, would only become acquainted with the opinions of one man, and with the state of philosophy at the particular period when he wrote. With respect, then, to the acquisition of knowledge as connected with the history of opinion on the subject of mind, of reasoning, of morals, the method of teaching pursued in the English colleges would, in my estimation, be greatly improved by introducing the practice of lecturing, in the Scottish acceptance of the word.

The communication of knowledge is not, however, on any account, the principal object which ought to be kept in view, in constructing a system of academical education. However important the knowledge received from particular authors may be, and whatever improvements may be made in the modes of communi-

cating it by more strict and minute examinations, by collections or otherwise, it must be observed, that these exercises embrace chiefly the means, but not the ultimate end of education. They, indeed, tend to improve the powers of comprehension and memory; but they are not calculated to bestow that vigour, activity, and penetration, by which students obtain knowledge of their own; by which they generate new trains of thinking, and acquire habits of weighing and estimating the grounds of their judgments; and of combining and expressing the knowledge which has been acquired.

In all these respects, the lecturing system appears superior to that with which we are now comparing it. While listening to a discourse delivered with some degree of animation, the mind of the student is necessarily more awakened, and feels a more powerful demand made upon its energies, than when perusing a printed volume; for, in the latter case, he is quite aware that inattention can be made up for by a second reading, and that every fit of absence may be fully compensated by a little voluntary exertion, when he is more disposed to be studious. The pupil, on the contrary, who hears a lecture pronounced from the chair, and who knows he is to be examined on the subject of that lecture, its principal topics, its arrangement and illustrations, and to be required to write an exercise on some part of it, composed, too, upon the materials with which he has been thereby supplied, is naturally actuated by every motive which can stimulate indus-

try and sustain attention. The memory is employed to store up the facts and reasonings brought forward by the lecturer; the judgment is exercised in discovering their connection and dependence; and the powers of reasoning are called into action, while he draws conclusions and generalizes his inferences. Compared with these efforts of mind, the mere reading a volume in private is a dull and uninteresting employment. The intellectual powers are never sufficiently roused; they are in a state approaching to passivity, being never stretched to their full tension, nor made to put forth all their strength. The young man, in short, is not induced by the mode of his pursuits to bring his energies into play; he is not permitted to know the extent of his talents, nor the amount of his endowments. He merely endeavours to deposit in his recollection a number of statements and a few general arguments, without having had to strain the faculty of reminiscence in gathering them together, or to task his judgment with the discovery of their relations. In a class-room, on the other hand, emulation and energy are found to result from the simple circumstance, that a number of young persons similarly situated as to age and advantages, are engaged in listening to the same things, and in receiving the same impressions. A sympathetic animation pervades the whole; the glow of zeal, and an expression of curiosity are perceived in almost every countenance; all the faculties of the mind are exerted, and powers unused before, are awakened into life and activity.

The *viva voce* examination, too, would be attended with the best effects in an English college. The age of the pupils, their previous acquirements as classical scholars, and the convenient number in which they assemble, are, as has been already mentioned, circumstances favourable to a successful application of the method now recommended. Such examinations are obviously a much better test of ability, and afford, at the same time, much more efficient means of improvement, than a conversation, or even a series of questions, on the works of any writer, however eminent. For, in the latter case, the pupil will be apt to give his answer in the words of his author, without, perhaps, clearly understanding the terms of which he makes use; whereas, in an examination on a lecture, to which he had listened in the company of others, he is compelled to exercise at once his judgment, and his memory, and to express his meaning in language of his own composition.

We may take an example from another department of mental exertion, the office of a reporter in the House of Commons, and compare the effects produced on the faculties of memory, arrangement and expression, by the constant exercise of these powers in the details of such a duty, with those which would arise from the mere reading a speech in the newspapers, even although he who reads were required to give some account of it, when he had finished the perusal. This is exactly a case in point. The student who listens to an academical lecture, under the impres-

sion that he is to be examined upon it, and to give the substance of it in an essay, is in the situation of the reporter in the house of commons; the student, again, who reads a book in his apartment, in the view of conversing upon it with his tutor, resembles the mere reader of a speech in a newspaper; and it will be found, upon a candid inquiry, that the effects of the two systems of education, here indirectly compared, will be analogous to those connected with the two exercises now described. Every one knows, how astonishingly successful many reporters are, both in the houses of parliament, and in the courts of justice, in giving the principal topics, as well as the leading points of illustration, of a long speech; and, it is too obvious to require remark, that this command of the several faculties of memory, discrimination, and arrangement, arises from a species of mental exercise, in many respects similar to that which is followed out in the first class of philosophy at Glasgow, and which I am satisfied, might easily be introduced, under certain modifications, into other academical establishments.

With regard, in the next place, to the writing of essays on the subjects discussed in the lectures, it cannot fail to be considered as a most fruitful source of improvement, and eminently suited to the circumstances of English colleges. I am perfectly aware, that essays are prescribed at present in the universities of England, and in that of Ireland; but, as I have already remarked, they are usually confined to

subjects unsuitable for very young students, and frequently so restricted, indeed, as to exclude undergraduates altogether from competition. The great use of this kind of exercise must arise from the skill with which it is adapted, not only to the acquirements and previous habits of the pupil, in the outset of his philosophical studies, but especially to his progress in knowledge and maturity of talent, according as these may happen to be displayed, at every subsequent stage of his advancement. At first, the subject prescribed ought to be simple, and, at the same time, susceptible of copious illustration. The essay itself ought not to be long, and the pupil should even be directed, in his earlier efforts, how to distribute his materials, and to connect his paragraphs. In these acts of attention and assistance, we discover the judgment and usefulness of the teacher; and in prosecuting the plan of essay-writing, to the extent to which it might easily be carried within the walls even of the larger English colleges, a thousand occasions would present themselves to the intelligent tutor, for giving a greater degree of efficiency to our mode of teaching, than we ourselves have ever been able to attain.

The improvement of the students in philosophy, taste, and composition, would be promoted at once, and by the same means. Their natural abilities would receive regular and appropriate culture; and, what is more valuable than all these advantages put together, the young men, taught in this way, would acquire a

force, and ready use, of all their intellectual faculties; and would be qualified for higher pursuits in the paths of science, or for engaging more successfully in the business of active life. The object of the teacher who follows this practical method, as I have already repeatedly observed, is not so much to convey knowledge, as to put into the hands of his pupils an instrument for acquiring it by their own exertions; not so much to give them an abstract view of mind, in general, as to make them thoroughly acquainted, from experience and reflection, with all its powers and modes of operation, in the acts of perceiving, remembering, forming judgments, conducting a process of reasoning, and generalizing particular inferences. He undertakes not to confer upon them the riches of learning to any given amount, or of any specified description; but rather such a degree of improvement, and such a ready use of their intellectual powers, as like the philosopher's stone, will convert into gold every thing to which they are applied. In the outset of the course, accordingly, he regards knowledge as valuable to youth, on hardly any other account than as it constitutes the materials of thinking, and the means of carrying on a practical system of instruction; convinced that, if he succeed in training his students to reason, to inquire, to arrange their thoughts clearly, and to clothe them with ease in a suitable form of expression, the principal end of an academical education will assuredly be attained.

It is not to be inferred, from any thing now stated,

that the judicious perusal of select authors, even during the course of the session, ought to be altogether disregarded. On the contrary, the lecture-system when properly conducted, by frequent reference to works connected with the several subjects discussed, necessarily leads to the perusal of a variety of publications; and the only danger attending it, is, that the reading of the students may become desultory and promiscuous, and consequently unprofitable. To prevent this, I usually specify such parts of every work as ought to be read in the meantime, being those, of course, that are most nearly allied to the business in hand; requesting the young men to postpone the farther examination of its contents till the ensuing vacation, when they have more leisure to profit by such studies. During the term, there is no time for extensive reading, the attention of the students being chiefly taken up with exercises which they have to write, and with preparing for the daily examinations. The lectures, indeed, so far from precluding the advantage of private study, are meant to afford directions for reading: while the practice of essay-writing carries with it, to the student, a very strong inducement to consult authors, both in order to obtain materials, and to ascertain the justness of his own conclusions. The great object, however, at this stage of his progress, is the improvement of his faculties, to which mere reading is supposed to contribute but in a subordinate degree, and is therefore not made the principal part of his occupation.

In justice, however, to a system, of which I have not hesitated to point out what appears to me the defects, I may add, that the English plan of education by means of books, conversation, and abridgments, is infinitely superior to the Scots mode by lecture, when not accompanied with regular examinations, and a systematic, progressive course of themes. Of the latter mode of conducting philosophical education, if education it ought to be called, I am unwilling to speak in terms which its absurdity suggests to my mind. But it is not to this very imperfect method that I now direct the attention of the reader; and, while indulging in a few remarks on the plan pursued in the English and Irish colleges, I may be permitted still farther to observe, that in the subjects selected by the tutors, there seems to be, in some instances, at least, a neglect of mental philosophy, and of that natural logic which is founded upon the knowledge of our own intellectual powers. In one college, classical literature is almost the sole study; in another, mathematics, and the higher parts of algebra, engross all the attention; but in scarcely any, do we find a regular process of intellectual culture, going on, conducted with a reference to the natural order of the human faculties, their growth, their progress and maturity. It is, therefore, with the view of supplying some defects, and correcting some errors, as upon the most candid construction they appear to me, in several of our academical institutions, that I have presumed to bring into public notice, the plan of teaching the first philosophy class in this university,

now firmly established from a conviction of its usefulness.

To give full effect, however, to this method of teaching philosophy, the office of tutor, in the several colleges, ought to be permanent. Such an arrangement seems absolutely essential to success, in the art of teaching; for this art, like all others, being founded on practice and observation, must derive, from that quarter, all the improvement of which it is susceptible. Upon the erroneous supposition, that the art of teaching consists in the mere communication of knowledge, it has been inferred, that wherever a person has acquired a certain portion of science, or literature, he is immediately qualified to instruct others. But knowledge and intellect are not the only qualifications of a teacher, nor even the most important. On the contrary, it is sufficiently confirmed by experience, that the most profound scientific attainments, the finest imagination, and the most exquisite taste, do not, of themselves, qualify their possessor for becoming a discriminating or useful teacher. The knowledge which will most avail him, in aiding the endeavours of youth, is that which is drawn from a strict attention to the development of the intellectual powers and habits, and from a close and continued intercourse with his pupils, in all their efforts, in their success, and in their failure. A teacher, no doubt, when he enters upon his office, must gain experience at the cost of his students, on the same principle that a

young physician improves in skill, at the hazard of his patients; but in colleges, where the tutors have their eyes fixed on senior fellowships, or church-livings, from the moment they enter upon their duty, it is impossible that much progress can be made by them in this difficult art. In this way, there is a constant and rapid succession of inexperienced tutors thrown into the most active department of colleges; and education, viewed in reference to its most important objects, never can rise above a state of infancy. The tutors relinquish their office, just when they are becoming qualified to fill it. The appointment, indeed, according to the notions prevalent in such places, is seldom considered of high estimation; it may be filled by any one who has been elected to a fellowship, and it is abandoned by all, whenever a favourable opportunity occurs. In such circumstances, then, we may safely infer there can be nothing of that ardour and enthusiasm so necessary to carry a teacher through the drudgery of his professional duties. There can be no such thing as an art of education. The old and the experienced quit the helm, and the vessel is left to the direction of those who have scarcely made one voyage. In any other art, it would be thought singular indeed, if those who were appointed to teach it were persons who, from their age or practice, had the fewest opportunities, and the most limited experience, who were to continue in that office only a very short time, who considered it merely as a temporary employment, and who, moreover, during that short time, so far

from having a sufficient inducement to exert their talents to the utmost of their power, would have their minds fixed on a better situation, soon to be enjoyed by them, not as the reward of services, but as the mere contingent of seniority. If this would be thought absurd in every other department of life, why is an exception to be made in the case of one of the most difficult, and, certainly, not the least important, of all arts, the art of teaching.

It is to no purpose to urge, in support of the present system of appointing tutors, that many of them have distinguished themselves by great ability and success in the discharge of their office. It would be wonderful indeed, if among such a number as exercise that duty, and amid such a variety of genius and taste as must occasionally adorn it, there should not be found some individuals possessed of the proper qualifications; who are seen to take pleasure in communicating knowledge to youth, and in being instrumental in their progress; who do not allow their minds to be alienated from their office by future prospects; and who find, in the consciousness of discharging a weighty obligation, a motive sufficient to support the exhausting labours with which it is attended. Such instances, however, are not to be attributed to the spirit of the system. They are rather to be viewed in the light of exceptions, and as exhibiting, in strong colours, the manifold advantages which would result from a mode of appointment, calculated to secure all the talent and zeal of the

teacher, for the improvement of education. The lower seminaries all over the country, are provided with masters on a better principle than the colleges in either of the English universities. They are filled by men who make education their profession; and who, having their eyes fixed on nothing beyond it, devote all their time to its details, and all their talents to its improvement.

I am not ignorant that another argument, if such it should be called, has been repeatedly employed, in support of the general plan of instruction pursued in the English universities. It has been maintained, that, with all their defects, these institutions have sent out into the world more great men—a larger number of persons distinguished in the different walks of science and literature, as well as in all the pursuits of public life—than almost all other establishments of the same kind. The views upon which this argument is founded are extremely fallacious, and prove rather, that native genius cannot be depressed by defective systems of education, than that eminent talent, or even great acquirements, are to be attributed to any mode of teaching. The greatest men whom the world has produced, have owed but a very slight obligation to the care or skill of masters; and, when we peruse the biography of Milton, Locke, Newton, and Johnson, we are at a loss to discover upon what other ground, than that their names were entered in a college record, any merit has been taken by the seminaries wherein they happen to keep their terms. Is

it imagined, that if men of genius were to give the history of the various steps of their secret studies, and the accidental aids by which they gradually attained celebrity, they would have much to ascribe to the forms, and lessons, and commentaries, of a college tutor? It were to be wished, indeed, in order to place this mode of reasoning on its proper foundation, that we had a list of the thousands who might have been scholars and men of science, if they had been suitably instructed; for, it is worthy of remark, that the merit of academical institutions is to be estimated, not by the few men of uncommon talents who have been there educated, but by their success in cultivating ordinary ability; in raising the lowest mental endowments to that degree of eminence which nature has placed within their reach; and, above all, by the tendency which they have to confirm habits of industry and a love of research. In short, we must not draw our conclusions in this field of inquiry from particular instances; and we have it not, in general, in our power to found them upon a comparative estimate of what is actually performed; because we cannot determine how much is due in every single case to natural gifts, how much is to be ascribed to individual exertion, and, of course, how much belongs to the teacher, and how much to the system of the school. We must, therefore, form our opinion on the subject on principles connected with general experience relative to the human faculties, and the most natural method of culture; on the analogy of nature in the development of our mental energies; and on the

practice of those who have been most successful in instructing the young, whether in action, fact, or principle. To this criterion I am willing to submit the propriety of whatever I have advanced, either in the way of stricture, or of suggestion.

The above observations, though they apply more immediately to those colleges, where the system of education is avowedly different from that pursued in Scotland, have, perhaps, some claims on the attention of all teachers who are appointed to conduct young men over the threshold of philosophy. The leading principle of the method which I here venture to recommend, is derived from the analogy of nature, and the experience of mankind, in every other branch of instruction, which prove to us that, in learning any art, mere precept is unavailing; that the beginner, in short, must work as well as listen; otherwise he has no chance of arriving at proficiency in the object of his pursuit. By a system of practical education, well regulated, and judiciously enforced, the student is enabled to become his own teacher; and when he has been accustomed to exercise his faculties,—to arrange his thoughts, whether for prosecuting his researches, or for committing them to paper, he finds that he can do for himself, what the most learned professor, without such means, could never have qualified him to perform. The result, on the whole, is that, unless professors condescend to become teachers, not only communicating instructions to their students; but subjecting them to a re-

gular course of active labour, and thus obtaining an opportunity of knowing the progress of their minds,—of correcting their labours, and of directing them to the means of higher degrees of excellence,—the effects of education will only be experienced by the chosen few, whose natural talents enable them to follow out, and profit by the ingenious lectures of the professor.

In the university with which I have so long been connected, the practical mode of education is zealously followed in all the departments of the undergraduate course. In the class of moral philosophy which succeeds that of the logic, the professor meets his students at two separate hours, each day, during the session. At the first of these, he delivers a lecture on the principles of ethical science, embracing such inquiries into the nature of the human mind, as are connected with the character of man, considered as a moral agent, and are necessary to unfold those states of thought and feeling, known by the terms instinct, appetite, desire, passion, and affection. In this way the student is led to consider the origin and authority of moral sentiment, and to trace the rise of those energetic principles which actuate and impel the vast mechanism of human society;—as also, the source and distinction of moral good and evil, of praise and blame, of reward and punishment. He is made acquainted with the opinions of the learned, in ancient and modern times, respecting the obligations of morality, the qualities of mind and of action in which

virtue consists, and the various standards of moral excellence which have been proposed in different ages and nations, to determine the true source of approbation in the human mind.

Those subjects are followed by a consideration of the principles of law and government, so far as these are founded on the moral nature of man;—tending to illustrate the gradual progress of refinement in the history of civil society.

At the second hour of meeting, the students are examined on the various topics of the lecture which I have just described;—or they listen to the remarks of the professor on the essays they are enjoined to write, which he reads daily in the class;—or, according to a practice long established in that department, they translate to him a portion of some of the ethical works of Cicero, or of the *Novum Organon* of Lord Bacon. This latter exercise, like the lectures of the college tutors in English universities, is accompanied with a commentary on the part of the professor.

In the class of natural philosophy, the last in the under-graduate course, the professor likewise meets his students at two separate hours every day. At the one, he gives lectures on the elements of matter and motion,—on mechanics, pneumatics, hydrostatics, optics, and astronomy. It being understood that the students have previously made some progress in

mathematics, he applies demonstrative reasoning to those parts of his subjects, which admit of it; while, in other branches, he illustrates the laws and processes of nature by a regular course of experiments carefully prepared, and exhibited by means of a very expensive and ingenious apparatus, enlarged from time to time, as the progress of the arts required.

But it is chiefly by following out a regular system of examinations and exercises, that my respected colleagues, in these two departments, render their labours available to the great object of academical instruction. Nor is there any part of the business of the class more agreeable to the young men themselves; as a proof of this, it deserves to be mentioned, that, besides the exercises which are required from the whole class, there are not a few presented as the fruits of voluntary study and exertion on the part of individuals. The spirit of emulation and the desire of improvement, which are thus excited, make the labour light and even pleasant. The student has the pride of appearing before his master and his companions, in the character of an author; and however incorrect or trivial his performances may be, they afford him at least the means of regulating thought,—of improving his reasoning and his style, and of measuring the progress which he makes under the training to which his mind is subjected. In a word, the manifold advantages of this system, both to teachers and pupils, can only be appreciated by those who have had the experience of their happy effects;

and that this practical method of philosophical instruction, is not more generally adopted in our academical institutions, is only to be accounted for, by the very familiar fact, that public functionaries are, for the most part, more inclined to rest satisfied with merely following out the line of duty which custom has prescribed, than to inquire very anxiously how their offices might be rendered more efficient for promoting the interests of the community.

I am not inclined to flatter myself with the expectation that any material change, in the system now alluded to, will be adopted, in consequence of any recommendation which is contained in these pages. But every person deeply interested in the success of education is entitled to expect, that whatever is candidly proposed, as an improvement in the plan of conducting it, should receive, at least, an impartial consideration. Nor is there any thing, I should hope, in the constitution of colleges in the south, positively to preclude all changes whatsoever, in the mode of applying the industry and genius of their students; for a statute to this effect would be tantamount to a determination, not to admit any of the improvements which the progress of science may bring to light, how essential soever to the furtherance of the object for which they were originally founded. Every change which is calculated to improve philosophical education must be in perfect accordance with the spirit and intent even of the most ancient of such establishments; and it is always to be presumed, that,

if the founders had possessed the knowledge and experience which has elsewhere led to any particular innovation, they would have been the first to adopt it. For instance, the statutes left in force, at the last visitation of the university of Glasgow, required that the professor of the first class of philosophy should teach Aristotle's logic, and those parts of his metaphysics which treat of ontology and the human mind. But the present professor does not think that, by any change of subject which he has introduced, he has deviated in the smallest degree from the spirit of these statutes; and his immediate superiors, accordingly, have sanctioned the modifications which he has thought it expedient to make, both in the subject-matter of his lectures, or in the details of teaching. This is nothing more than that accommodation to circumstances which the imperfect nature of all human institutions is found to demand. Laws become obsolete from the change of manners and opinions; and, although permitted to remain on the statute-book, have no more force than if they had never been in existence. So should all enactments which restrict education fall into desuetude, whenever they are found to oppose the advancement of sound views and of useful knowledge. And were the plan of teaching philosophy, which is here recommended, to be adopted in our universities, the reproach which is so often thrown out against them, of not teaching any thing connected with the business of active life would, in a great measure, be removed.

But I fear not so much the opposition which arises from statutes and the caprice of founders, as that generated by prejudices which spring up in learned societies, and are, in some degree, fostered by the habits and modes of life which there prevail. The magnificence and splendour of ancient establishments, with the power and privileges with which they are endowed, have contributed to separate them, in some very important respects, from almost every other learned society, and to create a feeling of superiority, which does not easily brook any change in their habits and institutions. It is to this constitutional pride and importance that I allude, when I anticipate opposition from the habits of thinking which prevail among some of those classes of men to whom these observations are addressed; for nothing is likely to be so ill received by them as an allusion to supposed defects and imperfections, except, perhaps, a comparison of their system with that of similar establishments.

It is not my object here to moralize on human weakness, nor to remonstrate with human folly; but, certainly, neither great age nor great wealth ought to be made the ground on which to raise a claim of superior excellence for a public seminary of education. Antiquity, be it remembered, is the infancy of society; and riches, in this case, as in all others, reflect honour on their possessor, only in proportion to the wisdom with which they are employed. Besides, the revenue of a college ought to be viewed in

the light of wages, and not in that of an unconditional donation. It originally sprang from the piety or liberality of individuals who wished to promote the education of youth; on which account, it becomes the bounden duty of the members of colleges, to provide, with the utmost assiduity, that the means afforded for the instruction of the young persons committed to their care, shall not only be such as they have hitherto been, but the best that the improved state of information, in modern times, can possibly supply. It continues, however, to be a reproach on some learned societies, that a prejudice in favour of certain modes of teaching is apt to become so powerful, as to withstand every effort to improve them; and that, while every other order of professional men are disposed not only to borrow but to steal improvements from one another, teachers in universities avoid all communication and intercourse, think it beneath them to take a hint which might prove useful, or to profit by the experience of those who may have ventured out of the common track. Such conduct is neither wise nor liberal. Engaged in the same dignified and important work, upon which the great interests of society so much depend, it ought to be the duty of every public teacher to exert himself to the utmost, whether by adopting new methods, or by improving upon the old, to raise higher and higher the intellectual and moral character of the human being.

But I forbear insisting upon matters so obvious

and common-place. No man doubts that it is incumbent on him to do his duty in the best way that it can be performed. The only difference of opinion is respecting the means; and, to come to a right judgment on this head, nothing more seems necessary than candid inquiry and a fair comparison. In this, as in all other questions as to right and wrong, better and worse, the force of truth must ultimately prevail.

PROFESSIONAL EDUCATION.

I PROCEED now to make a few remarks on that part of the academical course which has for its object, the qualification of professional men for the duties of public life; and also to suggest some observations on the expediency of extending its limits, so far as to comprehend certain branches of study which, however important in the estimation of literary men, have not yet been introduced into the scheme of university education.

In general, however, my remarks, in this section, apply, not so much to the things which are taught, as to the manner of teaching; for, though I shall take the liberty of suggesting a considerable addition to the professional course, my chief object is to recommend to those who preside over the departments of theology, law, and medicine, the adoption of the practical method of instruction which I have already endeavoured to describe.

It is unnecessary to repeat the arguments which have been used in the former division of this chapter, in order to point out the numerous advantages which arise from employing the mental energies of young men in their own education, and to expose the futility of every plan of education, which does not secure the free and constant co-operation of those who are to

be taught. It will require but little reflection to satisfy the candid mind, that the method of teaching which is found successful in the earlier branches of philosophy, will, with a few simple modifications, apply to every department of professional education. For as the same faculties of the mind are employed at every stage of human research, it is obvious that the same principles of reasoning must be called in to guide their operation, and that a similar mode of training should be adopted to invigorate their powers. In passing from the department of learning which occupied the under-graduate, to that which engages the student of theology, of law, or of medicine, there is only a change of objects, or a different set of materials on which to work. The intellectual instruments and the mental processes of analysis, comparison, distribution, and arrangement continue unchanged. Whatever progress, indeed, has been made in the former, will facilitate the advances of a young man, in all the pursuits which belong to the latter. His acquisitions in point of intellectual habits and acuteness, may be regarded as a free stock ready to be employed by him in all his subsequent undertakings.

With regard, however, to the professional departments of theology, law, and medicine, it has been, by some, maintained that examinations and the writing of essays, are an unnecessary accompaniment of the lectures delivered by the professor; because, as the students have generally arrived at such an age, it

is to be presumed that they take such a degree of interest in their professional pursuits, as must render all control or inducements to exertion not only quite unnecessary, but even in some measure unseasonable. But this is not a fair statement of the case. The greater number of the students who attend the professional classes, are far from being of mature years; and many of them, it may be suspected, have not enjoyed so complete a preparatory education, as to justify the neglect of all those means, by which the intellectual faculties are strengthened, and regular habits of application generated and confirmed.

But granting every thing that is assumed by those whose views I am now combating, and admitting the objections I have just stated in regard to age and previous acquirements, I cannot perceive any good reason, why young men should be deprived of the numerous and important advantages attending the practical system of tuition, at the very moment when their studies become the most closely connected with their success and respectability in the world. It is not indeed meant, that the examination at this advanced stage should be as frequent and minute, or that the exercises prescribed should be as numerous as in a first class of philosophy; but it is assuredly meant, that the practical method should be kept up in its full spirit; that there should be the same industry and emulation on the part of the student, and the same vigilance and control on the part of the professor, which insured the success of the under-

graduate course. I hesitate not to recommend that there should be adopted in the classes of law, divinity, and physic, such a mode of study, and scheme of discipline, as will effectually promote the objects which the several teachers have in view; as will, in short, secure attention to the lectures, and induce the student to acquire a correct and intimate knowledge of all the subjects brought before him. In whatever circumstances lectures are delivered for the instruction of youth, the system of education may be pronounced materially defective, if not followed up with a regular examination: for even a class of philosophers would give their attention more closely to a scientific discourse, did they know that they must speedily render an account of it, either in conversation or writing, to certain persons, vested with authority to demand such a proof of their application.

There is another objection, which has been sometimes urged against the extension of this practical mode of teaching to the higher professional classes, namely, that students of an advanced age should not be treated like boys, and be subjected to restraint and discipline as if they were at school; and it is accordingly insinuated that a plan of education such as is here recommended, would necessarily lead to a species of incitement, inspection, and control, which in its application would not only prove extremely disagreeable to young men of that age, but also interfere with those higher voluntary exertions in which they might be disposed to engage, so as to

render the system altogether useless and impracticable.

It may be sufficient to observe, in reply, that no man of common sense would recommend to a professor of theology, or of medicine, to transfer into his class the discipline of an inferior school; or to employ any other motives to secure the attention of his pupils, than such as appeal to their reason and feelings of duty. Why should it be thought derogatory or disagreeable to a young man, to find that his professor uses means to know whether he be present at the lecture, whether he fully comprehends its various positions and arguments, or, whether farther instruction might not be materially useful to him? Would any sensible professional student, desirous of information and improvement, regard such precautions on the part of his professor, in the light of an insult, or as the occasion of annoyance?

Should he not rather esteem it as a most valuable privilege, to have his early essays brought under the review of an able, impartial, and faithful instructor; to have the places where he has been the least or the most successful, fairly pointed out and appreciated; by this means enabling the student to avail himself by the corrections and suggestions of his teacher, and to acquire by degrees a facility of more perfect composition, which could not have been effected by mere rules or precepts of any kind? On the contrary, I venture to assert, that, in a great

majority of cases, the care and labour of the teacher would be met with corresponding activity and zeal in the pupil, and received with an abundant return of gratitude and respect, of proficiency in learning, and of distinguished professional eminence. Such are the happy effects of putting questions, of prescribing exercises, of reading and criticising the compositions of the young men in the hearing of their companions. Nothing is done which can, in the least degree, mortify the student, or expose him to reproach and ridicule.

Socrates, the great moral instructor of ancient times, adopted, as the most efficacious mode of communicating knowledge, the form of question and answer; and in this way, without respect to their age or condition, persevered in his endeavours to enlighten the minds of his countrymen. Such a mode of instruction is found to be highly advantageous in the inferior branches of philosophy; and ought not surely to be rejected by the professional student, merely because it is employed with success in the education of his juniors. There are a thousand things to be learned by the pupil in such intercourse, which could never be acquired by general rules. Besides, the objection, which we are now considering, rests upon the very unreasonable assumption, that a system of professional education ought to be constructed so as to meet the taste and conveniency of those who are to be taught; and who, according to this principle, are supposed to have a right to prescribe the

plan on which they will be pleased to receive instruction, and to dictate terms as to the amount of the labour and sacrifices to which they may choose to submit. Such are the absurdities into which men allow themselves to run, whenever they depart from the safe rules of experience in the actual business of life.

The reader will agree with me in thinking it unnecessary to apply those general observations to the particular studies of professional men. In regard to law, there appears to be so little system in the manner of studying it, that it would be extremely difficult either to point out strictures, or to suggest improvements. In some places the professors are not attended at all; and the student is only required to furnish satisfactory evidence that he has eaten a certain number of dinners at the Inns of Court; but no evidence whatever is required that he ever attended the courts of business, even for one day. It is difficult to conceive in what manner learned and sensible men should have adopted a plan of education, in which there are neither teachers nor scholars.

In this part of the kingdom, too, a mode of examination has been established, which renders the study of the law altogether nugatory. It is customary to mention to the candidate for admission to the bar, a suitable time before he is called upon to give any proof of his industry, the chapters, sections, or doctrines, on which he is to be examined. A person of

good understanding might, in the interval allowed for preparation, make himself sufficiently master of the task pointed out to him, though he had never opened a law book before. In this way, access to the highest honours of the legal profession is opened up to individuals, without employing any check, so far at least as examination is concerned, to prevent the approach of ignorance and imbecility.

I admit that, as law is to be found in the statute book, and in the decisions of courts of justice, rather than in the general principles of moral obligation, or in any system of first truths, which admits of philosophical exposition, it may not be easily practicable to reduce into the form of doctrines, that unconnected, heterogeneous information, which must be sought for in a variety of separate volumes. But there are, notwithstanding, certain branches of this profession which may be taught systematically, and to which the practical method of education might be applied with success. The lectures of Mr. Millar, for instance, the late celebrated professor of law in this university, were conducted on the principles I now recommend; and his mode of instruction has every where been regarded as one of the happiest examples of their application to a department of academical study, which is usually thought the farthest removed from the superintendence and assistance of the teacher. It was in no small degree owing to his practice of examining, and of prescribing essays on subjects previously discussed in his lectures, that he

acquired that high reputation, as a professor of law, which still attaches to his name. Every morning, before he began his address from the chair, he endeavoured to ascertain, by putting a number of questions to his pupils, whether they had been able to follow his reasoning the preceding day; and it was his custom, when the lecture was over, to remain some time in his lecture room, to converse with those students who were desirous of farther information on the subject. By engaging with them in an easy dialogue, he contrived to remove obscurities, and to correct any errors into which they might have fallen. This meeting was called among the students, familiarly, *the committee*; from which, many acknowledged that they reaped more benefit than from the lecture itself. It gives me much pleasure to add, that the present professor of law has adopted the practice of examining, after the example of his distinguished predecessor, even in the department of the Scots law. By beginning his course a few weeks sooner, and continuing it, occasionally, a little longer than the period of six months, the time devoted to the academical session, he is able, not only to give a full system of lectures, comprehending all the subjects usually introduced into a course of Scots law, but also to devote a portion of each day to the examination of his students.

It admits not of doubt, therefore, that much good would arise from extending the manner of teaching which was so successfully pursued by Professor Mil-

lar, at Glasgow. I admit the difficulties which encumber any attempt to bring the study of law within the compass of a course of lectures; and that it is not, perhaps, possible, by means of academical arrangements, to do all that might be wished, for preparing the young lawyer for the duties of his profession; still I am satisfied, that were lectures regularly delivered in our universities by men of talent and assiduity, and were students bound to give regular attendance, to perform stated exercises, to undergo frequent examinations, and to exhibit such other proofs of their diligence, as the professors might see fit to require, the study of law would speedily assume a new form, and the qualifications of candidates be raised to a higher standard; while young men would come out from our academical establishments much better prepared to commence their professional career than they possibly can be at present, with the very limited means of instruction which are afforded them.

The same observations apply to the study of medicine; in which, also, it appears to me, there is room for considerable improvement.

It is well known, that the medical faculty in our universities has chiefly confined itself to teaching by means of lectures only, without examinations, or the composition of essays. The main object of professors in this department is, to produce to their pupils the whole stock of knowledge which

they have been able to collect on the particular subjects of their annual course; leaving it to the young men themselves to digest, arrange, and understand the matter, with which they are thus furnished, in the best way they can. In the schools of anatomy and surgery, indeed, attendance in the dissecting rooms comes, in some measure, in the place of examinations.

There seems to be a peculiar inconsistency in omitting the practice of examination during the general progress of medical education, when it is considered, that, though the students are exempted from all the details of teaching, while they attend the lectures of the several professors, they are subjected to a strict examination afterwards, when they become candidates for a degree, or for a professional establishment. It would, assuredly, answer the views of all parties much better, were the means which are employed, at last, to ascertain the acquirements of the pupil, used regularly during the whole course of his instruction. For, in this case, the person examined would find himself much more master of his knowledge, and the examiner would be better qualified to measure its extent, and to bring it forth to advantage.

When on this subject, one is very naturally led to remark, that the examination for medical degrees, which is, in other respects, not altogether unobjectionable, is rendered still more useless than it would otherwise be, by the practice of conducting it in

Latin. In former times, when all works on medical science, as well as the lectures of the professors in the universities, were composed in that language, it was natural that the examinations should be held in the same tongue. But at present, when the science of every nation appears in its own language, and when the teachers in our colleges address their pupils in English, and on subjects, too, of which the Romans were ignorant, and for which, of consequence, their language has supplied no terms, the practice of examining in Latin is not only absurd, but clearly inexpedient, and positively injurious. It is, indeed, the most effectual that could well have been devised for preventing the examiner from discovering whatever talents or knowledge the candidate may happen to possess; for, when an incorrect answer is returned to a professional question, it is often difficult to know whether the defect proceeds from ignorance of the subject, or from the want of habit in speaking a dead language. Nor does the professor himself, on such occasions, enjoy that facility of explaining, correcting, and illustrating, which he should always have at command. He prepares his string of questions, as the candidate prepares his string of answers; and if either be disturbed in pursuing the beaten path of accustomed phraseology, his professional knowledge will not be sufficient to carry him through either with credit or satisfaction. The examiner, even though a good Latin scholar, can neither be expected to possess the facility of expression or of distinction, which is necessary for correcting the state-

ments of the candidate ; nor can he judge of proficiency and skill in medicine, when a superior command of the language in which he examines is wanting.

But such examinations are objectionable on another account. As the same process is gone through perhaps a hundred times a year, the questions put by the different professors necessarily assume a settled form, and become known to the medical tutors who undertake to prepare young men to pass this professional ordeal. Not being accustomed to any sort of examination during the whole course of their attendance in the classes, and finding that they must undergo at last a severe scrutiny in a language which they have not been in the habit of hearing or of speaking, the candidates for a degree must place themselves under the tuition of some one of those masters already referred to, (who make it their business to collect the questions and answers which actually precede a graduation,) and under such auspices, commit to memory as many words and phrases as will secure the diploma to which their ambition has been directed. Such a practice cannot be creditable either to the pupil or to the institution where it is systematically pursued.

Medical examinations, we have been sometimes told, have been continued in Latin so long after the lectures have ceased to be given in that language, because it is of consequence that physicians should be men of literature ; and particularly, that they

should retain a familiar acquaintance with the works in which the elements of their science, and the opinions of its most successful proficient, were originally given to the nations of modern Europe. But, if Latin be so essential to the qualifications and character of a medical practitioner, let the faculty secure its attainment by more regular and efficacious means. Let it be established as a fixed rule, that at least every candidate for the doctorate shall have had a complete classical education. Let them enjoin the professors of the several branches of the healing art to examine their pupils frequently in Latin as well as in English, and to prescribe alternate exercises in these two languages. As matters stand at present, they cannot but acknowledge that it is extremely unreasonable to discourse to the young men three or four years in English, without asking a single question in any other language; and then all at once to mount upon their Latin stilts, and to come forward with more than all the learning of Celsus; to confound their pupils, by speaking to them in a tongue, in which they had never before heard them utter one sentence or propose one question.

I have thrown out these remarks on the mode of conducting medical study with freedom, hoping that the subject may soon attract the attention of those who are placed in circumstances more favourable for suggesting improvements, as well as for carrying them into effect.

I now proceed to make a few observations on the theological department of professional education, as it is conducted in both divisions of the island. These remarks apply, of course, to the Presbyterian as well as to the Episcopal constitution of the Christian church.

Considering that the main object contemplated in the establishment of universities, was the proper education of churchmen; and that, since the remotest times, the heads of colleges and also the persons employed in carrying on the work of instruction, have themselves been in holy orders, it cannot but appear strange, that there should be so many defects in the methods which continue to be pursued for qualifying young men for the sacred office.

Taking into consideration, also, that theology comprehends so many important and difficult subjects; that many other departments of human knowledge are necessary to carry on the study of it with advantage, it is a matter of surprise, and of censure somewhere, that the appointment of regular teachers of theology, the method of teaching, the time allotted to it, and the attendance of students, should not have been brought under more strict and more definite regulations.

In both the ecclesiastical establishments of the kingdom, there is great room for improvement in the system of clerical education.

In Scotland, the students of divinity enter the professional course, after an attendance of four years at the classes of literature and philosophy. This course consists of lectures on theology, church history, and the study of Hebrew, with the other kindred languages of the east. It extends likewise through a period of four years; and if the attendance be interrupted, as sometimes happens, the term of theological study is protracted two years longer,—making in all a course of not less than six years. During two of these, however, the attendance may be irregular, the students being required to attend only for a few days each year. This irregular attendance is permitted by the ecclesiastical court, rather in consideration of the circumstances in which many divinity students are placed as tutors in families, or teachers in schools, than from any view to the encouragement of sacred learning.

This option of two years irregular attendance in the divinity hall, ought not to be the first two years after their entry; for during these years, they ought to be obliged to attend the professor of theology regularly, that they may have the advantage of being directed in their private studies, by the exposition of the subjects of theological study, the methods of investigating these, and the selection of theological books which they ought to peruse.

When this rule is not observed, and the young men commence their theological studies without such

directions, they are left to themselves, as to their proper studies and the distribution of their time, as well as the manner in which they may be pleased to employ it; and it must be added, that the situation of tutors in families, and also of public teaching, must occupy the greatest part of their time, and unfit them for close or deep study during the rest of it. In every point of view, it is decidedly favourable to theological study, that the students be obliged to attend the professor, during the whole of the first two sessions, after they commence the study.

It must be noticed, also, as a defect in the method of studying theology at the Scots colleges, that, during their long period of attendance, no examinations take place on any of the numerous and important topics to which their attention has been directed; whilst the few professional discourses which, in compliance with the rules of the church, are delivered by the students in the divinity hall, as they may, or may not, be prepared by those who read them, afford but a very equivocal and unsatisfying proof either of talent or of industry.

In some other colleges, too, we find personal attendance at the lecture is almost entirely optional; and when we consider the age of the students, the general aversion to intellectual labour which characterizes that time of life, and the many temptations to idleness with which they are constantly surrounded, it must be acknowledged that such a relaxed dis-

cipline is highly unfavourable to the acquirement of those habits and of that learning, which are usually deemed essential to the teacher of religion.

It is very clear, too, that one hour a day is far from being sufficient to enable the professor to perform his duty as it ought to be done. The necessity of devoting time to hear the discourses read which the church demands of every student, leaves to the professor little more than two hours a week for lecturing; and thus puts it entirely out of his power to explain to his pupils, the leading doctrines of natural and revealed religion, which constitute the main parts of their professional studies. As this remark applies to the Scots colleges, the church of Scotland has itself to blame for sanctioning this irregular and inefficient mode of study. In consequence of this irregularity, it frequently happens, that the projected course of lectures remains unfinished, long after the statutory attendance of the young divine is over. I have heard of a theological professor whose system could not be expounded in a shorter period than twenty years, and which was consequently shared in equal parts by five successive generations of divinity students.

Why then, it may reasonably be asked, is the business of a theological professor confined to giving a lecture one hour a day; and on a certain number of days only in the week. The academical office of the professor is to teach theology, and the obligations attached to this office unquestionably de-

mand, that he shall employ as much of his time and labour as may enable him to teach it in a successful manner. There certainly is no statute in our academical constitutions which limits the teaching of theology to one hour a day; and I know there are no such limitations in this university, and the practice of the present professor which I am now to mention is a sufficient proof of it.

In former times, it is well known, the professors of divinity here, did not confine their labours to so short a time; but occupied as much of it in lectures and other exercises as the purposes of a complete theological education required. The celebrated Bishop Burnet who was, several years, professor of divinity in this university, set an example in his method of teaching which well deserves to be followed by all who fill such offices in universities.

Taking a comprehensive view of the subjects of study, he completed a course of theology in a certain number of years. He appointed also a series of exercises founded on the lectures to be executed by the students, and appropriated a certain part of the business to each day of the week. To these he added certain evening exercises of great importance, by which he maintained a constant intercourse with his students, ascertaining the progress of each, examining the theses that were to be impugned and defended, and encouraging them to propose their difficulties to him on the subjects they were reading. But it is

unnecessary here to mention particulars. The detail of the bishop's plan of teaching will be found in the account published of his own life.

I have mentioned this plan of Bishop Burnet, when professor of divinity at Glasgow, as exhibiting a complete proof that the office of a professor of divinity, in those times, was one of great labour and assiduity; and it is with the highest satisfaction I state, that my much respected colleague and friend, Dr. M'Gill, the present professor of theology in this university, duly impressed with the defective method of conducting theological education in Scotland, has made considerable progress in restoring the former system of activity and emulation, both by regular examinations and exercises on important topics of the lectures, and by others of a critical nature on passages of scripture in the original languages. But I shall do an essential service to the public in publishing the detail of his method of teaching, with which he has favoured me. His example, I hope, will be followed by other professors of divinity in Scotland.

“The students of divinity in the universities of Scotland generally attend the theological class four sessions of college. In the university of Glasgow, their number is above two hundred, and the session consists of *six* months. The present professor of divinity divides his students into two parts, and forms

of them a *junior* and a *senior* class. To each of these he sets apart a *separate* hour for instruction.

“ The *junior* class consists of students of the first year. To these he delivers lectures, 1st. On the principles of evidence, with a special view to the proofs for natural and revealed religion: 2d. On the necessity of revelation: 3d. On the nature of the different kinds of proofs which might be afforded for a divine revelation to those who were immediately addressed—and to those who lived at a distance, or in a different age. Under this head are considered various questions respecting internal evidence, and the evidence of miracles. 4th. The evidences for the Mosaic and the Christian dispensations, are stated, and illustrated at considerable length; and the objections to their divine authority are considered and removed. 5thly. The books which claim to be received into the *canon* of scripture are stated, and the authority on which their claims are rested, examined and estimated. Lastly, the nature and the proof of the inspiration of the scriptures of the Old and New Testaments are pointed out and illustrated. The lectures of *this* class are concluded by some advice respecting the manner in which the scriptures should be studied.

“ On the various subjects of these lectures, essays are appointed to be written during the session. These essays are given to the professor, who, after a few days, returns them to the students. They are

then read in the class publicly by the individuals who composed them, and such observations as they severally require are made by the professor. In the selection of the subjects of these essays, he is guided either by their intrinsic importance, or by a consideration of the erroneous ideas which the students may be in danger of forming in regard to them. He also, for obvious reasons, varies the subjects in different sessions. He joins with these exercises frequent examinations on the subjects of the lectures; and sometimes, instead of recapitulating the topics of the preceding lecture, he requires the students to state them. During the last month of the session, every student of this class, delivers, also, before his professor and fellow-students, a homily from a subject which has been prescribed to him at the beginning of the session. For the delivery of these homilies, two days each week near the end of the session are appointed. On these, remarks are publicly made; and afterwards, he meets in private with each student, and gives him such instructions and admonitions as circumstances may require.

“ The second or *senior* division of the students of divinity, consists of students of the second, third, and fourth years of attendance. The course of lectures delivered in this division extends over three sessions. But, while all the lectures combined, form one general system, each session has such a part of the entire system as forms a whole within itself. The lectures of this course commence with stating and illustrating

the several duties of a student of theology, his dangers and temptations, and those dispositions with which he should enter on the study of divine truth. They next point out the difficulties which must be expected, and the causes from which these proceed,—direct the attention to the style of the scriptures,—to the MSS. of the Old and New Testament,—to the ancient and modern versions, their history, character, and authors, and to such ancient and modern writings as may aid in the critical study of the sacred books. The lectures are then directed to the statement and illustration of the DOCTRINES and DUTIES of christianity, arranged both according to the nature of the subjects, and to certain great successive eras in the divine dispensations. With these are joined the statement and consideration of the principal opinions and controversies to which they have given rise. It would be tedious to state the various subjects comprehended under a course of lectures so extended. It is sufficient to mention, that they consist of a selection of all the principal subjects which are usually comprehended under the name of a system of divinity.

“ The students of this second division are in different stages of progress, and are *subdivided* into three parts; to each of which particular employments and exercises are appropriated. To the students of the *second* year, an hour on Friday, each week, is especially devoted. At that hour, essays on the lectures are read; examinations are held on the subjects

of the lectures; and such occasional instructions as are suited to the progress of that division of students are given.

“ The students of the *third* year, besides attending the lectures, and occasional examinations on them, are examined once every fortnight on a chapter of the New Testament. This chapter they translate successively from the original; and, besides being required to give a correct verbal translation, they are required to state the precise import of the passage, and to explain the peculiar idioms and different phrases which may occur; the nature of the customs, or the places and opinions mentioned, or to which allusion is made; and the manner in which any difficulty or objection may be removed. Sometimes, also, difficult passages of the Old Testament are mentioned a few days before the examination, and they are required to state in their own manner the nature of the difficulties and their proper solution.

“ The students of the *fourth* year are presumed to be preparing for their *trials* before the presbytery. No other duty, besides that of attending the lectures, and delivering the discourses appointed by the church, is required of them; except that each, in his turn, must open the class, by public prayer. They are examined, also, occasionally, with the other students, on the general subjects of divinity, or on some of the principal topics

which have been considered, during the course which they have attended.

“ At the conclusion of each session, subjects for essays to be written during the summer months are prescribed to the students both of the junior and senior classes, and prizes are given according to their merit. Essays also, on any important points in divinity, which students may select for themselves, are encouraged, and if treated with ability, are rewarded.

“ An excellent private library belongs to the divinity students of this college. It is maintained, and gradually enlarged, by a small sum paid annually by each student. It is managed by a committee chosen each year by the students themselves, with the approbation of the professor; and is conducted with much prudence and success.”

The method of teaching which has been so fully described, and which occupies at an average *three* hours each day, has, for some years, been tried in this university, and found productive of the happiest effects. It has infused a spirit of activity, as well as of attention to the lectures,—an attention formerly unknown here, or in any of the other divinity halls in Scotland. Into no department of study, indeed, can this practical mode of teaching be more successfully introduced, than that of theology, church history, &c. After passing an active course of philoso-

phical education, the students carry with them to those classes, a fund of knowledge, and what is still more valuable, habits of reflection and study which greatly facilitate their progress in this new field of research. At this period, too, their minds are less distracted by variety of studies, than at an earlier stage of their progress, whilst the subjects on which they are to be engaged are of a nature so highly important, as sufficiently to excite their curiosity, and command their attention.

Why, I beg leave to ask, should the principle of activity be relaxed, and habits of assiduity and research thrown aside, at the very moment when young men are entering on the studies which are most closely connected with their future profession? Certainly, if there be any good reason why students in the preparatory classes should be inured to exertion merely to qualify them for engaging successfully in their professional pursuits, it must appear highly absurd to allow them, just when these pursuits are to commence, to shake off entirely all restraints of discipline, and to relinquish all habits of industry. The spirit of diligence and of scientific research cannot be arrested in its progress, without manifest disadvantage. When it does not advance, it loses ground,—when it does not receive fresh life, it withers and dies; and nothing is more likely to hasten this decline, than a lazy, spiritless, deadening mode of studying theology;—without application, without object, without check or responsibility of any

kind. With what spirit, on the other hand, or with what feeling of satisfaction, can a professor of divinity continue his lectures, when he, confessedly, knows nothing of the progress of the young men under his care;—has no means of ascertaining whether his statements and reasonings are fully understood by them, with what difficulties they have to struggle, under what misconceptions or errors they may labour, or even, in some instances, whether they be actually in his class room during the lecture.

On every account, therefore, it is highly expedient that the active practical system of teaching which is followed out in the under-graduate course, should be continued in the divinity hall. In no department of life is the right conduct of professional study more important than in that of theology. At all times, has the christian divine many enemies to encounter, whose various attacks require a skilful use of all the armour with which learning and eloquence can supply him, and at the present day, in particular, he is called upon to oppose himself to the attacks of the infidel, the more undisguised assaults of perverted learning, and the bewildering arts of the unbelieving sophist. A good theological education is, under providence, one of the best safeguards of religion, morality, and social peace. A professor of divinity, moreover, has much in his power, even in the way of recommending attention to accomplishments of a secondary nature,—to eloquent composition and clear reasoning,—to a chaste and classical style,—to a

warm and graceful manner; in a word, to whatever may enable the future preacher to reach at once the heart and the understanding of his audience.

It is to be regretted that, in some quarters, opinions continue to prevail, of which the direct tendency is to bring about a species of divorce between the science of theology, and the aids it may receive from the arts of reasoning and eloquence. In all situations, public men ought, without doubt, to possess public talents; and it should never be forgotten, that however sacred and important the instructions may be, which a clergyman has to communicate to his congregation, it must be conveyed to their minds through the usual channel of distinct and perspicuous language.

The same objection was at one time extended to the use of profane literature and philosophy at large, considered as the means of improving the mind, and of thereby qualifying young men for offices in the church. Such narrow notions, it is obvious, receive no countenance from the inspired writings. We are not to imagine that the strictures found in the New Testament on the vain philosophy of the Greeks, can, in any degree, warrant an attempt to connect piety with ignorance, and the knowledge of God with the studied neglect of all those sciences which make us acquainted with his works. When the Almighty condescended to remonstrate with his disobedient people, he employed not the voice of

Moses, the slow of speech; but that of the more eloquent Aaron. When the disciples were sent forth to preach the gospel, among Jews and Gentiles, the learned and the unlearned, they were commanded to be wise as serpents, not less than to be harmless as doves. And when situations of great danger and difficulty were in prospect, an apostle was chosen of corresponding labour and fortitude, who has left for the imitation of all preachers, an example of powerful and manly eloquence. In all times has the christian orator very formidable enemies to encounter, principalities and powers, spiritual wickedness in high places. He must be girt about with the whole christian armour. Those who have to combat such an host of enemies must possess other qualifications, besides those of seriousness and good intention, and even an impression arising from an obscure corner in their own minds, or the credulity of parents by which they persuade themselves that they have been called to the work of the ministry.

But it is unnecessary to obviate objections which are now very seldom urged; and which at no time deserved a laboured answer. It is at present almost every where admitted, that learning and science are indispensable requisites in the grand work of a clerical education, and that knowledge of the scriptures, biblical criticism, oriental literature, ancient history, and a clear methodical style of composition ought to be the main objects of professional study. The great point, then, is to fix on a system of means for rea-

lizing these important ends;—and I know none more likely to prove efficacious than the practical mode of teaching which has been unfolded in the preceding pages; and which is happily illustrated in its application to theology, by my learned colleague, the present professor of divinity in this university.

With regard to theological education in England, I have few observations to make, because I know not that there is, in fact, any regular system of instruction by which a divine, under the episcopal establishment, is trained to the duties of his profession. In both universities, I am aware, there are a few lectures delivered by the divinity professors; but besides, that such means are far too limited to answer the purposes of a good theological education, there are no sufficient means taken to ensure a regular attendance in candidates for holy orders.

It is, indeed, admitted that, in the English universities, there is no professional education attempted in any one department. They are more schools of general preparation, whence the students go forth into the world, make choice of a profession, and begin in other seminaries a new course of education to fit them for it. Those who intend to pursue the law, proceed to the inns of court: those who mean to devote themselves to physic, repair to the hospitals of London, or to the lecture-rooms of our Scottish colleges; while such young men as prefer the church, are left to seek the knowledge suited to their

professional views, wherever they think themselves most likely to find it.

“In our universities,” says an author who has recently addressed the public on this subject, “both law and physic have, equally with theology, their professors and lectures; but, in neither of these faculties, does any man aspire to practise, nor indeed will he be admitted to do so, till in another and exclusive school, he has abstracted himself from a general to a strictly professional and technical education. But for church candidates, where do we find a suitable and peculiar school? Where are we to send our sons to be trained for the arduous and responsible duties of the christian ministry: since, in most colleges, after the attainment of the first degree, none except fellows ever remain. As for the examination for deacon’s orders, a few weeks reading in some dioceses will qualify a young man who has passed through college, and possessing ordinary capacity, to undergo it with the utmost ease. Something more in these days is required.”*

When we consider the importance of good education in clergymen, and the extensive and difficult subjects which that education embraces,—the whole doctrines of natural and revealed religion,—the va-

* See *An Inquiry into the Studies and Discipline adopted in the two English Universities, as preparatory to Holy Orders in the Established Church*: by a Graduate. 1824.

rious sciences connected with theology, as also the several languages of the east; without a competent knowledge of which, no man can be esteemed an accomplished divine;—it cannot fail to excite surprise that theological instruction in England should still be so loose and defective, and so unlike any thing that might have been expected from the piety and learning of the many celebrated men, who, from time to time, have adorned the national church.

These objections are not to be answered by the usual remark, that, notwithstanding the defects now mentioned, the learning and professional eminence of English divines, will not suffer in comparison with those of any other establishment. I am not disposed to lessen the reputation which has been conferred on that meritorious body of men; but, assuredly, if there be any connexion between professional education and professional distinction, it is our business to improve the former to the utmost of our power, in the full confidence of gaining a beneficial end. To men of great abilities, the aids supplied by mere systems of academical instruction are, it is owned, of comparatively little importance, and most of the theological writers, accordingly, to whom the church of England is indebted for her fame, were under no obligations to the wisdom or efficacy of their college studies. It is, therefore, by the good effects which an improved method of teaching would produce on the clergy at large, that we must measure the utility of public institutions, and not by the indi-

vidual exertions of a few men of genius who owed nothing to the established routine of education, but whose names are used too frequently to apologize for the defects of a system which cannot be defended on the ground either of reason or expediency.

That the learning of which the clergy of England are most accustomed to boast is not the best calculated to secure professional usefulness is readily admitted even by themselves. The author to whom I have already referred, very properly asks: "What avails a proficiency in writing Latin prose and Greek verse, if accompanied (and accompanied it often is and has been) with the want of correctness, perspicuity, ease, and fluency in English composition? Few in a country, or indeed in a city parish, will be inclined to relish, or even competent to understand such accomplishments (should they exist), while all will understand and appreciate a correct, chaste, and graceful English style. How many young men, on entering the church, are deterred at once from composing their own sermons, owing to the difficulty (arising from the want of knowledge or practice in the art of writing,) which they find in committing their thoughts to paper. But as our school and college education is now conducted, where is the novice to learn the principles and practice of English composition? Where has he heard, or can he hear, explained and exemplified the science and method of sermon writing? Not at college, most certainly. If a young man has attained any facility or superiority in

this, he must, too generally, be wholly indebted to his own good sense and unassisted endeavours. But is this dealing fairly or honestly with our youth? Is this strange and unaccountable negligence to be found in any other profession, or even in any common trade? The art of composition is one of no easy attainment; nor will a knowledge of Greek and Latin qualify their possessor for writing English, without careful study and constant habit, in endeavouring to acquire it."

The subject has recently, in various forms, attracted the attention of the British public, and there is no doubt but that some improvement in clerical education will speedily be attempted. The pamphlet, from which I have made the above quotation, is addressed in the form of a letter to the secretary of state for the home department, who is, at the same time, one of the parliamentary representatives of the university of Oxford. It is strongly recommended that two or three colleges in each of the universities, should be exclusively set apart for theological education; but, if such a measure should be found impracticable, it is proposed that a third, or ecclesiastical university, should be founded in some suitable part of the kingdom; or that so many new colleges be built either at Oxford or Cambridge for the reception of divinity students, immediately after taking their bachelor's degree.

"In this third university, or in these ecclesiastical colleges, theology, in all its branches, theoretical, doc-

trinal, and practical, should be studied. Hebrew should become an indispensable exercise; and the Greek Septuagint should be adopted as a regular class book from which to deliver lectures. The writings of both the Greek and Latin fathers are well worthy of attention, and should be deemed leading objects of study and examination. In short, the historical, critical, doctrinal, practical, and pastoral departments of theology, should all become especial and anxious subjects of regard. And should the knowledge and the exercise of English composition be omitted or contemned, a course of lectures on the principles of English grammar, and on the structure, peculiarities, and elegances of our language, would go far to supply those defects in a college education, which, however lightly they may be deemed by many, have not unfrequently been a bar to the usefulness and high attainments of the established clergy."

The author, who subscribes himself "a Graduate," and to whom I have already referred, is of opinion that some change should be made in the studies and discipline in the two English universities, as preparatory to holy orders in the established church. I agree with him in opinion that a change in the conduct of theological education in the universities, is absolutely necessary; but differ from him in thinking that the proposed change would require the setting apart of a certain number of colleges in each of the universities for the study of divinity;—and if that could not be done, that a third or ecclesiastical uni-

versity should be founded for that purpose, in some other part of the kingdom, from which university students of all other denominations should be excluded. This proposed change is too great, and unnecessarily expensive. All that is required is, that the professors of each university,—(and if they are not of sufficient number already, others may be added)—give lectures on theology, three or four times every week, to students, after they have taken their bachelor's degree; that, after the lectures, they shall meet their students at a convenient hour, to be examined on the subjects of the lectures, and to have subjects for theological essays prescribed, which they are to execute and deliver to the professor for criticism, and receive farther instructions if necessary; and that all theological students shall produce to the bishop certificates of regular attendance on these classes, before they can be admitted to orders. An additional regulation still may be proposed, namely, that provision be made in every college for watching over students who attend the theological course, in order that their education may be complete.

As the influence of our holy religion depends not a little on the character of the clergy, and the esteem in which they are held by the people among whom they minister, it is to be hoped that the great and good men who preside over the church of England, may be able to devise some method of improving theological education, on principles of economy and

strict discipline. In many important particulars, the dissenters have set an example which deserves their attention. Candidates for the ministry among them are instructed with increasing care and success; and it is unquestionably a very singular fact, that the establishment of England, the largest, the wealthiest, and most influential body in the protestant world, has no regular, authorized plan for the education of their clergy.

Having taken a survey of the professional departments of law, medicine, and theology, for which provision has been made in universities at the end of the under-graduate course, it remains to inquire, whether there are not many other classes of students who may receive much advantage from appropriate establishments in universities. What provision is made in these seats of learning for the education of a numerous class of students who, from their birth, rank, and condition, may become statesmen, legislators, and magistrates? A young man may be a good linguist or mathematician, and yet be utterly unqualified for the numerous duties which belong to the citizen of a free country. On this account, there ought to be established, in the great seminaries of the nation, a course of study, fitted to prepare youths of birth and fortune for the important duties of active life. The physician and the divine, when they have finished the under-graduate course, are only ready to begin the studies which have an immediate relation to their future profession.

Why, then, should not the member of parliament, the lawgiver, the justice, &c. &c. have the advantages of such a system of liberal instruction at college, as will secure to them that knowledge and those habits which are suited to their high destinations in the civil and political world.

What, then, it may be asked, are those additional branches which ought to be introduced into the professional course of public education? In answer to this question, I should name three subjects, as possessing the greatest degree of importance in reference to the object under consideration, namely, the philosophy of history, political economy, and the study and practice of eloquence. These, generally speaking, are still wanted in all our academical systems; while they are of such extensive importance for forming the character of public men, that it might appear quite superfluous to waste a single argument in order to recommend their adoption.

In regard to the first of the branches just mentioned, the philosophy of history, I have to remark that lectures on history have been established in several universities and professors appointed; but they have seldom been numerously attended. Their object has chiefly been to teach the method of reading history, by communicating an abridged and arranged view of the facts and events as circumscribed by time, place, and circumstances, and their lectures therefore are supposed to comprehend little more than might be

acquired by a careful perusal of historians. But in a course of lectures on the philosophy of history, the attention of the students should not be confined to the mere facts and events which fill the annals of states and kingdoms; but should be directed in a special manner to those principles in human nature which give their origin to the various forms of society, from which spring the institutions, laws, and usages which characterize the condition of man, in his most polished, as well as in his rudest state. Such a course of lectures would, in short, unfold the moral and political history of man, and present an illustration of the principles upon which nations are founded; and which give birth to the rights, the duties, and the obligations of the human being, viewed as the member of a community. It would also point out the several sources of his improvement, in virtue, happiness, and independence, as well as the causes of his depravity and decline; and, in searching for examples to confirm and illustrate his statements, the lecturer would have recourse in particular to the history of our own country.

He might begin by exhibiting to his students the state of Britain, according to the earliest accounts, when it was chiefly known as a small island adjoining to the European continent, inhabited by the "*penitus toto divisos orbe Britannos*." The surface of it was for the most part covered with impenetrable forests and inhospitable deserts. The inhabitants were

few in number; living either in a solitary manner, or roaming in straggling parties from one place to another, seeking shelter from the inclemency of the weather in caves, or in the most miserable huts; possessing neither towns nor villages—without agriculture, without commerce, without arts; feeding on the spontaneous gifts of nature, and covering their bodies with the skins of wild beasts. In such a condition, there was no bond of union among them,—no shadow of political institutions,—no laws, either to protect or to avenge,—no rights, but such as were founded on violence and brute strength,—no property,—no security,—no confidence. The relations of domestic life seem to have been scarcely formed, and not at all respected. The rude savages lived almost promiscuously in their caverns; obeying no calls but those of appetite, and yielding to no authority except that of the military chief who drew them forth to plunder or revenge.

The next picture to be presented is that of Britain abounding in cultivated fields, and great populous cities, and magnificent works of art; having colonies and possessions ten times more extensive than its native territory; navies which cover every sea; a commerce which stretches to every part of the earth; a political power and influence, which are felt in the remotest regions of the globe; and a superiority in arms, which is at once acknowledged by the most improved and felt by the most barbarous nations. She presents, too, a government the near-

est to perfection of any that human wisdom has yet succeeded in constructing; and which affords more scope for talent and enterprize than any that is yet known in the rest of the world. She exhibits also, a highly improved condition of the arts and sciences, institutions civil, political, and religious, which preserve and cherish those sacred principles of liberty, virtue, and honour, that give life and spirit to the whole:—and, in a word, a combination of nearly all the advantages which man proposes to himself by the formation of society, and which can be obtained only by industry, security, liberal principles, and the free communication of knowledge. Add to these facts, the exalted and cheering prospect of still higher improvement, and still greater advances in learning, independence, wealth, and power; and the contrast will then appear striking and complete.

Such is the amazing gap which is to be filled up by the philosophical historian;—and so extensive is the field in which he is to seek an illustration of the principles which explain the progress of society! A retrospect such as this must excite in the mind of an ingenuous youth a deep feeling of interest. He will burn with a desire to obtain a full explanation of a moral phenomenon, at once so striking and so familiar, so curious, and yet so important. He will be induced to regard the study of the human character as one of the subjects most worthy of his attention, and to stamp the highest value on that species of know-

ledge which throws light on the operations of his mind, under different external circumstances at the sundry stages of his political career. The history of human institutions will become to him a system of moral science. He will learn to read in the language of facts, opinions, and public establishments, the best commentary on the mental energies and passions of his fellow creatures;—he will find himself able to estimate the talents, the resources, and the ultimate improvement of man, by taking a measure of what he has already achieved, and of the rate at which he has advanced. While the geologist, in his department, is endeavouring to explain the deepest secrets in the natural history of our planet, and to point out the physical causes which have been employed in forming and distributing the mineral strata of which it is composed, why should not the inquirer into mental phenomena attempt to unfold the succession of events which form the history of its principal inhabitant, and account for the many changes which have taken place during his progress from rudeness to refinement?

It has been usual to illustrate this progress by a reference to four several stages of civilization, denoted and characterized by the different means which are resorted to at each of these periods, for the production or distribution of food. The first is the age of hunting and fishing, when as yet man has few wants and fewer arts. This is succeeded in process of time by the feeding of flocks, a state which im-

plies greater foresight and an increasing regard to comfort. At that epoch, men begin to have fixed residences, to acquire the notion of separate property, to study the convenience of dress, and to erect habitations of a more durable description than are ever built by the roving hunter. The third epoch is marked by the commencement of field labours. The land is made to contribute a supply of food; and the scattered cottages are now arranged in the form of a village. The soil, at this period, becomes a source of wealth and influence; its qualities are improved; and the methods of culture, and the instruments of husbandry exercise the ingenuity of the farmer and mechanic. A surplus produce is obtained; and the owner studies to vary and increase his enjoyments, by exchanging what he has to spare for the superfluities of which his neighbours are willing to dispose. Hence arises the fourth age of human improvement, that of commerce and manufactures, which is accompanied with an advanced state of learning and refinement, of luxury and artificial wants, a multiplication of the arts and the more delicate enjoyments of society.

The path, now described, is that in which the human race has advanced towards civilization. It has even been regarded as the natural course which, if they are not diverted from it by accidental causes, all nations are destined to pursue. It is admitted, at the same time, that some people have been prematurely forwarded to the last stage of improvement,

without passing through all the preceding ones. The Americans, for example, by receiving all at once the arts of European nations, have been rapidly carried to a high degree of civilization and wealth; to which, but for the advantages now mentioned, they would not have attained, until after the labours and inventions of several centuries.

In a course of lectures, however, such as that I am now recommending, the main object with a judicious teacher, will not be the reception of any favourite theory on the part of his pupils, nor even the communication of the greatest possible degree of knowledge relative to historical events. He will find, on the contrary, that the most essential duty connected with his office, is to make the young to think for themselves; and for this purpose he will be less solicitous to provide them with a mass of facts, than to excite a spirit of inquiry, and to secure the exercise of all their intellectual faculties. With the same views, he will accustom them to regular composition on the subject of his lectures; and encourage them to free speculation on the sources and character of political events as they pass before them. At this stage of their education, the art of expressing their thoughts in correct and perspicuous language ought to have become familiar; and it is presumed that such an exercise must now be productive not less of satisfaction than of improvement, realizing the pleasing fruits of former care and exertion.

The history of Great Britain is replete with topics on which students, arrived at the age and attainments of those we have now in view, might have their minds most profitably employed. The Roman, Saxon, and Norman conquests present numerous facts which still affect the rights, privileges, and even the laws of Englishmen. The feudal institutions are pregnant with instruction. The forms of government, the modes of legislation, and the principles on which property was held and transmitted, afford many interesting views to the young statesman, and could not be studied by him, under the direction of an intelligent master, without storing his mind with much valuable knowledge, creating habits of discrimination, and giving him the ready use of many intellectual energies which might otherwise have remained dormant and ineffective.

Passing over many subjects which invite the attention both of teacher and pupil, I may mention, as one of the greatest interest, the origin and constitution of parliament, its division into separate houses, the objects, qualifications, and privileges of each, as well as the method of introducing and conducting the business of the nation. The history of parliament is the history of British liberty. It is connected with another important topic, the decline of the prerogative, and the extension of popular rights; and in this way naturally recalls, the long and doubtful struggles between the crown and people, the various success with which these

were attended, and the final adjustment of our excellent constitution on the basis of liberty.

These, however, and the long list of subjects which might be enumerated, will be regarded by the professor of the philosophy of history, not so much as parts of a narrative with which every young man should be acquainted, as the materials of intellectual food and exercise, for strengthening the minds of his pupils, and as the fittest means for calling forth their industry and talents, as well as for giving them an insight into those parts of the human character, to which all the relations and institutions of social life bear an ultimate reference.

But it must not be conceived that, even at the period of life when students, after having gone through the under-graduate course, may be supposed to enter the class of which we are now speaking, much skill will not be necessary on the part of the professor, to secure their constant and hearty co-operation. Their minds, no doubt, must now be open to a variety of notions which cannot be expected to influence the conduct of boys in the junior classes; and there are inducements to exertion, arising from ambition, interest, or vanity, which may perhaps, in some instances, counteract the love of ease, and subdue the natural aversion to study. Still the professor will find all his experience necessary to sustain that regular and constant activity among his students, without which, he knows well, his labours would prove comparatively

vain. He must contrive to place them in such circumstances that exertion will almost cease to be a matter of choice. He must impose on them such a degree of moral necessity, as to render their co-operation with him certain and vigorous. He must connect their endeavours so closely with his own, that zeal on his part may produce on theirs activity and perseverance. Sensible that, unless the young men under his care can be induced to read, write, and reflect, his learning and research must go for nothing, every professor, whose views have been formed on the practical system of education, will, above all things, labour to create in them a willing mind, and to render the exercise of their mental powers easy, familiar, and pleasant.

I abstain from pointing out subjects for numerous essays which ought to be written in the class of the philosophy of history; both because such details would be inconsistent with the general nature of my remarks, and more particularly, because the method of conducting the practical part of academical education, has been explained at considerable length, in a former division of this work. Suffice it to say, that the subjects prescribed should be carefully selected with regard to the previous attainments of the student, and to the sources of information within his power, and that they should be often expressed in an interrogatory form, so that by frequent repetition of the question to himself, the student may be assisted in keeping before him the end in view, and prevented from deviating. I

therefore proceed to make a few observations on the second branch of professional instruction, as applicable to the business of civil and mercantile life, namely, THE SCIENCE OF POLITICAL ECONOMY.

This science is, from its nature, more difficult to be acquired than most others. It is abstracted from the train of affairs and events which respect man, in his public capacity, from his rude to his most civilized state. The access to it is guarded by a host of terms and phrases, which require much discrimination, definition, and illustration. These must not only be known, but familiarly known, previous to argumentation and reasoning. The following are among the number of these phrases:—Labour, productive, unproductive,—division of labour,—value, exchangeable value,—price of commodities natural and market,—capital, employment of it,—production,—distribution,—consumption,—stock,—rent,—freedom of and restraints on trade,—circulating medium,—opening of ports,—systems of political economy and many others. I know no method by which the necessary knowledge of these can be more effectually obtained, than by the appointment of professors in universities, and by subjecting their investigation to lectures, examinations, and exercises.

In the present state of society this is a very important study; for it is closely connected, not only with trade, taxation, and the public revenue, but with all the practical departments of government whether in

peace* or in war. It is a science, however, which may be said to be still in its infancy. No light is derived to it from the labours of antiquity; nor from the plodding industry of the middle ages. Its date ascends no higher than the beginning of the last century, when certain Italian writers engaged in speculations on the sources of public wealth; and thus laid the foundation of one of the most valuable kinds of knowledge which have aided the advancement of modern civilization.

The philosophers of France extended the views suggested by the Italian economists, with all the enthusiasm and talent which belong to that country. Sir James Stewart had the merit of naturalizing the science here; soon after which, it was taken up by Dr. Smith, who long adorned this university, and who, by means of his immortal work, conferred on mankind one of the greatest benefits which the arts and business of life have ever received from the researches of learning and genius. In latter times Malthus, Say, Ricardo, and Craig have followed the steps of the great author of the "Wealth of Nations;" adding new lights, or suggesting modifications of his doctrines, according to the various results which are unfolded by the progress of society.

Though the science of political economy has not yet attained that certainty in its first principles to which in all probability it will hereafter arrive, it has, unquestionably, acquired such a degree of consis-

tency and importance, as to justify its introduction into the academical course of education. Every argument that was employed in recommendation of an establishment in our universities for teaching the philosophy of history, bears with equal force in favour of a class for political economy. It is a branch of learning which ought to be held indispensable in the education of all young men whose rank in life may, at any future period, give them a place among the legislators of the country, or even open up to them those paths of ambition, where wisdom and knowledge prove of the greatest avail, both to raise their own character, and to secure the welfare of the public. The gentleman of fortune, the magistrate, and the merchant should be taught to seek in the lecture-room of the political economist, an acquaintance with those principles, on which the wealth, the commerce, and even the jurisprudence of the nation, are known to have their firmest support.

But no reasoning on the mere abstract grounds of expediency, will so clearly establish the many advantages attending the knowledge of this science, as the well-known history of the bullion committee, which sat, towards the conclusion of the late war, on the subject of the national currency. Men of the greatest abilities took opposite sides on that question, differing even in regard to the first principles in reference to which it was to be determined. There was no approach to unanimity. They found no common ground on which to stand. The legislators of the kingdom, in whose hands

were deposited the commerce and prosperity of the richest and largest mercantile society in the world, reasoned as loosely and with as slight a hold on any established principle, as if they had been weighing the merits of two geological theories. At a subsequent period, however, when the bearing of the question came to be better understood, the contending parties found themselves of one mind. Some of the gentlemen had in the mean time gone to school, whence they returned to their duty in parliament, not only more learned in general, but complete converts to the particular system which they had so vigorously opposed.

Hereafter, there will be no apology for such ignorance. The public will no longer tolerate such a want in their representatives of that very species of information, which is the most essential to the proper discharge of their duty. From their deficiency in the knowledge of this subject, they are frequently compelled to abstain from taking any share in those deliberations, on which the highest interests of the nation are suspended.

This defect in education may be easily supplied by the appointment of professors in all universities, to teach the elements of political science. Such an addition to the course of study might be made at small expense, and so arranged as not to interfere with any branches of literature or philosophy which are already taught. According to the scheme which I

have ventured to suggest, it would not occupy the attention of the student until he had finished the under-graduate course. It would take its place in the academical curriculum at the same period with divinity, law, and physic; constituting a professional education to those who are not to become members of any of the three learned faculties.

I find it altogether unnecessary to enter into any detail as to the mode of conducting such a class. Regular exercises in the way of writing and examination, I hold, are essentially requisite even at this advanced stage of the student's progress. His attention to the lectures will be, by this means, gained; his talents will be improved, his ingenuity will be sharpened, and the valuable habits of reflection and composition, will be matured. Every young man, indeed, of ordinary powers and ambition will be forward to second the endeavours of his teacher, in a field of inquiry so interesting and important. He will find himself employed in researches which, from time to time, engage the great council of the nation, and in the examination of principles which guide the practical administration of government. He will be called upon to give his opinion on measures which divide the wisdom of parliament; to trace the effect of institutions and laws which direct the efforts of industry, which open channels for commercial enterprise, and which regulate the practical and mercantile intercourse of the whole civilized world. In such circumstances, the curiosity and ar-

dour which inflame the youthful mind, will, in general, prove a sufficient stimulus to exertion. The professor will find his task easy; and the pupil will discover that his studies are not less pleasant, than they are profitable and honourable.

Notwithstanding the great importance of political science to the higher classes of the community, I am aware that difficulties will be found or created, to oppose its introduction as a branch of education into those seminaries where it would be attended with the greatest advantages. The power of public opinion acts slowly, and with little perceptible effect, on ancient institutions and established usages. The universities of England, accordingly, will not be the first to admit innovation, though it should appear before them, recommended with the most flattering promises of improvement and utility. But they will, perhaps, follow at a distance, the example of less magnificent corporations, allured by their success or stimulated by a sense of their own deficiency; and when the work has been nearly accomplished by others, the patrons of national education will probably come forward to extol the motives, and enjoy the triumphs of a liberal age.

It gives me much pleasure to state, before I conclude these observations, that the professor of moral philosophy, in this university, has, for many years, delivered a course of lectures on political economy, with great approbation and success.

The third branch which I have proposed, as an addition to the course of professional education, is *a class for the improvement of eloquence.*

This proposal, I am aware, may appear to many persons to be both less practicable and less useful, than either of the two former ; and, besides, as there are already in our universities professors of rhetoric, whose office it is to teach at least the principles of eloquence, an additional institution for a purpose so nearly similar may appear unnecessary. These remarks, however, do not apply to the object which I have in view. It is not the science of eloquence merely that I would have taught in our colleges ; it is the art of speaking, founded on practice and illustrated by example, which I regard as a valuable desideratum in our academical course. But before I can distinctly state the object of the class I am now proposing, there are two or three points which must be discussed and settled, in order to establish its practicability. In the first place, I should not despair of being able to prove, that the seeds of eloquence are to be found scattered in every mind, in a greater or less degree ; and, also, that there is a certain attainable improvement in that art to which every student may be successfully carried, by means of judicious training. It is not pretended, indeed, that even the best system of instruction, in this department, will render a man a Demosthenes or a Cicero ; but it is maintained, at the same time, that much benefit may arise from cultivating the original powers of the

mind, of the voice, and of the ear, whatever may be their limits, as well as from presenting an opportunity to young men, of ascertaining the extent of the gifts which they have received from nature, and of turning them to the best advantage. In this, as in all other branches of education, many individuals, it is true, would derive little profit from the labours of the teacher.

Again, I have to observe, that, considering the great importance of eloquence to public men, it is an object worthy of national attention to provide means for improving it, even though the greater number of students should fail to attain the qualifications of a finished oratory. The advantages attending such a class would not, however, be confined to a few. The majority of the young men who should enter it, would infallibly gain improvement, as well from their own practice, as from the example of others: and, if we estimate aright the high value of a distinct and effective mode of delivery, in the church, at the bar, and, above all, in the two houses of parliament, we shall find that it is of more consequence to promote, even though in an inferior degree, the general culture of this talent, than to confer the highest oratorical accomplishments on a few individuals whose abilities might naturally be fitted to receive them.

I have to remark, too, in the third place, that the means, not less than the capacity of improvement, are in the hands of every one. It is not necessary that

the student of eloquence should have recourse to the precepts of Aristotle, of Cicero, or of Quintilian; or that he should sedulously form himself on the models of a high antiquity. Nature, and the example of an able teacher, will point out the species of eloquence which he should endeavour to acquire: and a constant well regulated exercise will prove of more avail, for the accomplishment of his purpose, than the most painful study of all that has been written, by Greeks and Romans, on the theory of declamation, and on the art of moving the passions. But I forbear at present entering into details relative to the plan of conducting this important branch of professional education; having some intention of expressing my opinions, in regard to its object, and the practical methods by which alone this object can be attained, in a separate publication on a kindred subject. If I shall be able to follow out my intentions respecting this third division, one object which I shall keep in view, is, to give up the method of teaching eloquence by explaining the abstract systems of rhetoric, as laid down in the works of Aristotle, Cicero, or Quintilian, which has been so long practised, and with so little success; nor shall I satisfy myself by extracting brilliant passages or figures, from celebrated orations, as has commonly been done. I propose to make a selection of such orations, ancient or modern, as will best suit my purpose, to make the whole, and not detached parts of the oration, the subject of my criticism,—to direct the minds of youth to the substance, spirit, intelligence, feeling, and association which it con-

tains from the beginning to the end; and, if I shall be successful in this part of my work, it will not be difficult to conduct the other parts of it in such a manner as to afford a specimen of teaching by example. This complete analysis leads to simple and rational rules of elocution and delivery, within the reach of every student to understand and to apply.

I have now only to make a few concluding remarks on the addition which I have proposed to the professional studies of our universities, and to consider some of the objections that may be urged against its adoption.

If it be the main object of education to call into exercise, and, by this means, to improve, the several faculties of the human mind, it will be granted, that the additions here proposed to the academical course are necessary to supply a very material deficiency in the scheme of public instruction. Classical learning, mathematics, and the elements of philosophy, are, no doubt, very useful for giving a suitable employment to the intellectual powers of youth; and, for this reason, they ought to be continued as the principal occupation of the under-graduate course. But other studies, besides these, are necessary to qualify men for the business of life; for, if the education given at college is meant to have any reference to the conduct of affairs, in the ordinary departments of human pur-

suits, I maintain that there is, at present, an utter incompatibility between the means and the end.

Take the most favourable view that can be taken of ancient literature and geometry, of the systems pursued in our universities, of the books that are read, the lectures that are given, and, above all, of the exercises which are required on the part of the students, and it must be admitted, by every candid person, that the business of universities has very little relation to the business of life; affording but a very indifferent preparation for future eminence or success, in those fields of exertion, into which the great, the wealthy, and the ambitious, are the most likely to enter.

Suppose the plan of education to be followed* in the great national seminaries, were yet to be devised; and that men of most experience in the affairs of the world, and even a deputation from the learned orders of society, were to assemble, with the view of deliberating and fixing on the best system of instruction for all classes of the community, is it probable, that they would come to the determination of restricting the studies of youth to the Greek and Roman classics, and to the knowledge of triangles, ratios, and equations? The scheme of education which is still acted upon in universities, was constructed at a period when business was comparatively unknown; when the relations of society were not studied, as the foundation either of commerce or of jurispru-

dence; when eloquence was not esteemed; when history was confined to a few monkish legends; and when our parliaments took little care of the public finances, and hardly ever interfered even in the momentous questions of peace and war: the studies which answered the purposes of those times, must be very inadequate to the wants of the present age. A few centuries ago, learning was pretty much confined to the clerical order; and, of course, had in view no higher object than the simple qualifications which entitled ecclesiastics to enter on the duties of their profession: but, assuredly, there is no token of wisdom in the practice of any academical establishment, in modern times, which limits the inquiries and exercises of young men, intended for the general business of life, to the pursuits of the mere ecclesiastical student.

The addition to professional education now proposed, would fill up, at the English universities, a portion of time which, according to their present system, finds no employment at all. After their first degree young men in general leave college. Those who have a profession in view, repair to the several institutions where professional knowledge is to be found; while those of rank and condition generally travel into foreign countries to gather, under the direction of a private tutor, whatever information as to language, manners, and government, may happen to fall in their way. This practice, if all circumstances be taken into consideration, will not appear deserving

of much commendation: and I have no doubt that it is very frequently resorted to, because the plan of university education, presents no suitable employment to young persons at this, the most important and decisive period of their lives.

It is scarcely possible to conceive a young man placed in circumstances less favourable to the study of foreign manners, law, and government, than when he has just escaped from the discipline of a college;—ignorant in a great measure of the history and institutions of his own country; possessing only the words of a dead language, or the elements of mathematical science, and surrounded with numerous temptations, arising from the novelty of his situation, in a strange land. Would it not prove much more beneficial, were our universities to institute for those students who have just completed the under-graduate course, classes in which they might acquire a knowledge of the events and establishments which distinguish their native country; where they might enter into the theory of its laws and policy; study the principles on which its affairs are conducted; and the sources of its wealth and power compared with those of other nations; and, in a word, where they might gain that general acquaintance with the nature and business of man, without which a youth may pass through all the kingdoms of the earth, and return neither wiser nor better informed than when he set out.

When these considerations are viewed on general grounds, no objection occurs that is likely to influence an unbiassed mind; but when we weigh them in connexion with the prejudices of long established seminaries, we have not the same confidence as to the impression which they will ultimately produce. Unfortunately, every proposed amendment is regarded in the light of a dangerous innovation on an ancient and venerated system; and is, consequently, opposed with the same firmness and resolution, which mark the resistance of civil rulers to those political changes which disaffection or ignorance occasionally suggests to the multitude. Such fears, however, are equally weak and groundless. In matters of government, the boldness or wickedness of a single individual may set at nought the wisdom and reason of thousands; but nothing of this kind can take place in academical reforms, where men are guided, not by the violent impulse of passion, but by experience and views of utility. If any particular change is not found to succeed, recourse can instantly be had to the former practice. The same authority which sanctioned the innovation, is at hand to remove it, whenever any inconvenience is felt, or any disappointment experienced. In truth, there can be no danger from new lights in the arts and sciences, and more particularly in the art of education: and, I may add, that where there is no innovation, there cannot possibly be any improvement.

No system of education, however perfect at the

period of its first establishment, can fully accord with the progressive improvements of society. If the pursuits of life change, in the course of ages, so ought education to change, in order to meet the demands of the public, and to qualify men for the varying duties of their respective professions. Antiquity, we should never forget, is the infancy of the world, and consequently destitute of all that knowledge, theoretical and practical, which has been derived from the enlightened experience of subsequent generations.

Nor is there, we should hope, any thing in the constitution of colleges, to preclude all changes whatsoever in the mode of employing the genius and industry of the young men who attend them. A statute to that effect would be tantamount to a determination not to admit into them any of the improvements which the progress of science may eventually bring to light, how essential soever to the furtherance of the object for which they were originally founded. But such a supposition is perfectly absurd. We are justified, therefore, in holding as a first principle, that every change calculated to improve philosophical education, is in complete accordance with the spirit and intent of the most ancient seminaries:—and, moreover, that had the founders possessed the experience which, in modern times, has elsewhere led to improvements in the method of teaching, they would readily and cheerfully have adopted them.

As an instance of this accommodation to circumstances which the imperfect nature of all human institutions is found, from time to time, to demand, I may mention that the statutes left in force, at the last royal visitation of the university of Glasgow, required the professor of the first class of philosophy to teach Aristotle's logic, and those parts of his metaphysics which treat of ontology and the human mind. The present professor, however, keeping in view the main object of his class,—the improvement of the powers of reason, of taste, and of communication,—introduced a material innovation into the scheme of instruction, which had been prescribed by the authority just mentioned; but he does not think that by so doing, he deviated in the smallest degree from the intention of the visitors, or the spirit of their statutes. His immediate superiors, too, proceeding on the same principle, felt no difficulty in sanctioning all the alterations which he had thought it expedient to make, whether in the subject of the lectures, or in the practical details of teaching.

But were these laws, actually in existence, incompatible with the improvement of education, in the great schools of the kingdom, they ought most certainly to be repealed, or at least regarded as a dead letter. Other laws, we are told, become obsolete from the change of manners and opinions; and why should not those which are only found to operate against the advancement of sound views and useful knowledge?

But I fear not so much the opposition which arises from ancient statutes and the injunctions of founders, as that which is generated by the prejudices of certain learned corporations, whose habits and manners are rigidly opposed to every thing that carries the appearance of innovation. The magnificence, the splendour, and the antiquity of their establishments, together with the civil and political privileges attached to official station, have contributed to separate them in some very important respects, not only from the common feeling and sympathy which attend the progress of public opinion, but even from such an intercourse with other literary bodies as might lead to imitation and improvement. They appear to have contracted a sentiment of superiority, which does not easily brook a comparison with less wealthy and less ancient institutions; and which rejects, with scornful impatience, every suggestion that seems to imply their system might probably be altered for the better: It is to this constitutional pride and importance that I allude, when I anticipate opposition from the habits of thinking which prevail among some of those classes of men, to whom my observations are addressed; and which, as they lay hold of the weakest parts of the human character, are the least likely to be removed either by reason or by experience.

It may be of use, in this case, to remind the patrons of those wealthy foundations, that riches reflect honour on their possessors only in proportion to the wisdom with which they are employed;—that the re-

venue of a college ought to be viewed in the light not of the rent of land, but of the wages of labour ;—that it originally sprung from the piety or benevolence of individuals who wished to promote the education of youth ;—and that, on these accounts, it becomes the bounden duty of all who enjoy such revenues, to provide with the utmost assiduity, that the means afforded for the instruction of those committed to their care, shall not only be such as they have hitherto been, but that they shall be the best that the improved state of information in modern times can possibly supply. Must it not, therefore, be regarded as a reproach on some learned societies, that a prejudice in favour of certain modes of teaching is allowed to become so strong as to withstand every effort to improve them : and that, while every other order of professional men is disposed not only to borrow but to steal improvements from one another, the teachers in universities should avoid all communication and intercourse, and should think it beneath them to take a hint which might prove useful, or to profit by the experience of those who have ventured out of the common track?

Such conduct is neither wise nor liberal. Engaged in the same important work, on which the great interests of society so much depend, all public teachers ought to exert themselves to the utmost, either by adopting new methods, or by improving on the old, to raise higher and higher the intellectual and moral character of the human being. But I

forbear insisting on matters so obvious. No man doubts that it is incumbent on him to do his duty in the best way that it can be performed. The only difference of opinion, therefore, must respect the means; and to come to a right judgment on this head, nothing more seems necessary than candid inquiry, and fair comparison. In this, as in all other questions, to the determination of which plain sense and impartiality are fully competent, the power of truth is great, and it will ultimately prevail, even over the inertness and false views which arise from a long cherished self-complacency in individuals, as well as in public bodies.

The beneficial effects of a philosophical education, conducted according to the practical method which I have here attempted to explain, are numerous. In the first place, it is calculated to engraft upon the minds of the students a strong habit of reflection and inquiry. Not only are the powers of reason improved and invigorated, and thereby rendered more efficient, as the instruments for prosecuting science and literature; but what is of much greater consequence, the talent of using them is at the same time acquired; and the young man finds that the gifts of nature are made available to all the higher purposes of his education, as well as to the noblest objects of his intellectual existence. The daily necessity which this mode of instruction imposes upon the pupil, of forming distinct notions; of attending to the evidence on which his judgments are founded; of

arranging his thoughts; of determining, by means of analysis and induction, the links which constitute a chain of reasoning; and, above all, of expressing his ideas in correct and perspicuous language, can scarcely fail to produce mental habits of acuteness, activity, and discrimination. Now here the practical method of teaching philosophy rests its main claim to notice on this characteristic circumstance, that it sets little value on the mere communication of knowledge, whether by book or by lecture, compared with the immense importance of exercising the minds of young persons, on the knowledge which is thus conveyed to them. As far as an acquaintance with a few facts in science is considered, the attendance of young men on the lectures of a professor is viewed as carrying with it hardly any advantage whatever. A little well directed private reading would accomplish the same end, just as effectually, and at much less expense. To render academical studies useful, therefore, the student must not be allowed to act the part of a mere recipient. On the contrary, he must be taught to ruminate on what he hears; to pass it all through the channels of his own mind; to arrange and digest it; to write on it, to reason on it; and, finally, to make it his own by combining it with his own thoughts and reflections. He is to regard the lecture, not simply as the history of philosophical research, or even as the authoritative vehicle of scientific conclusions, but principally as the means of supplying him with those materials, on which he is to employ his

faculties in the several processes of analysis and arrangement, of reasoning and of composition.

The practical method holds very little in common with those systems of education, which confine all the labours of the teacher to the delivery, once a day, of a written discourse, or to the perusal of a few sections of some approved author. When all that work is performed, the true business of a philosophical class is still to begin. The lecture pronounced from the chair, or the reading accomplished under the eye of the tutor, are, so far as they go, necessary and commendable, but if no more be done, nothing is done that will prove of any efficacy to invigorate the youthful mind, or to form intellectual habits. It is not enough to load the surface of a field with the richest manure; the soil must also be moved, and its inherent powers excited, else there will be neither beauty nor abundance. The college lecturer merely supplies the ingredients necessary to vegetation: the practical teacher of philosophy, on the other hand, besides affording these materials, stimulates nature to put forth her energies, watches her operations, directs and even aids her powers in the production of a crop.

It is with reluctance I repeat the remark, that, in several of our academical establishments, the philosophical education of youth is very imperfectly understood, and most inefficiently conducted. The exertion, whatever it may be, is almost entirely con-

fined to the professor. The pupils are not required to do any thing. It is pretty much left to themselves whether they shall be utterly idle or partially employed, whether they shall derive any advantage from their attendance on the lecture, or go away, at the end of the course, as ignorant and uninformed as when it began. Surely, the common sense of the nation will not much longer permit such an abuse of the means of improvement.

It is, however, worthy of remark, in the second place, that whatever changes for the better shall be made on our system of education, it must begin with the teachers themselves. The art of teaching, like all other arts, is founded chiefly on experience. Improvements, therefore, are not to be expected from legislators and politicians, who have many other objects to engage their attention; nor even from men of science, unless they have had experience in the business of education. It, therefore, becomes the duty of every one engaged in teaching philosophy, to collect facts,—to record observations,—to watch the progress of the human faculties, as these expand under the influence of education;—and thus to unite their efforts for the general improvement of our academical establishments.

Lastly, it is consolatory to think, that all the improvements of which philosophical education is susceptible may be realized, without imposing on the public any new burdens, merely by adding a little to

the labours, and introducing a few modifications into the systems of those teachers, to whom this department of education is already intrusted. Were any farther encouragement, in the form of pecuniary aid, to be found necessary, the nation, I am persuaded, would not withhold it. But such assistance is by no means requisite for this particular purpose. The funds of the greater part of our colleges, if judiciously managed, would prove quite sufficient for all the purposes of good education. No bar to improvement, therefore, presents itself in that quarter. Could we secure a hearty co-operation on the part of the professors in all our universities, the work of reform would proceed with the greatest ease, and without deranging any of those forms and usages which are so apt to attract importance from the mere length of their duration. Time, however, will be necessary to pave the way, and to remove the obstacles which continue to impede the advancement of correct notions on this interesting subject;—and to time we must leave a consummation which, the more fully it is appreciated, will be the more ardently desired.

I cannot allow myself to conclude this subject, in which I feel so deeply interested, as a lover of science, and as a teacher of youth now grown old in the service, without seriously pressing the views of education here given upon the heads of houses and teachers of every denomination in colleges and universities. With them, there must be many associa-

tions with former times and occupations, which may tend to rouse their spirit and their activity. The magnificent and venerable mansions which they inhabit, they must consider as marks of the bounty of public and private donors, bestowed upon them as the guardians of public education—as the directors of teachers and of students. By the same tenure they hold the most valuable privileges of British subjects,—the right of representation in parliament; gentlemen of the highest rank are ambitious of representing them; the peers of the realm think themselves honoured by being chosen as their protectors. They are even put in possession of privileges or immunities denied to other corporations. A species of monopoly is created in their favour; and in those cities where universities are established, the citizens are prohibited from such amusements as might interfere with the studies and occupations of students. Not only the most learned men are chosen to conduct the business of education, but a numerous list of scholars are supported in colleges under the designation of fellows, that, by example, conversation, and intercourse, the youth may be habitually carried forward in the prosecution of their studies.

It is impossible to suppose, that all this has been done to place the teachers of youth in so respectable and so enviable a situation, without the well founded hopes of a suitable return, in the shape of activity and zeal directed to the education of youth. It cannot be imagined even by the most presump-

tuous, that its object was to promote the self-confidence, the interest, or the ease of a few individuals. On the contrary, the members of such institutions must be convinced, that a sacred trust has been committed to them by the public—the education of youth, which involves in it the hopes and affections of parents, the respectability and happiness of an efficient part of the community, and the best interests of their country.

After the reflections which have been made on other universities, it would be unfair to conclude, without admitting that a great reform has taken place in one of the universities, in the examination of candidates for the degree of Bachelor of Arts, which is now not only established upon a proper footing, but the candidates are allowed to compete for honours, as it is called, by an examination in the greatest number of Greek and Latin authors read in a correct and masterly manner. But this reform must be estimated by its proper merits ; it certainly provides for the better and more extensive study of Greek and Latin, but it makes no other alteration on the academical course, which remains as before, and admits none of the changes and additions which have been here humbly but earnestly proposed.

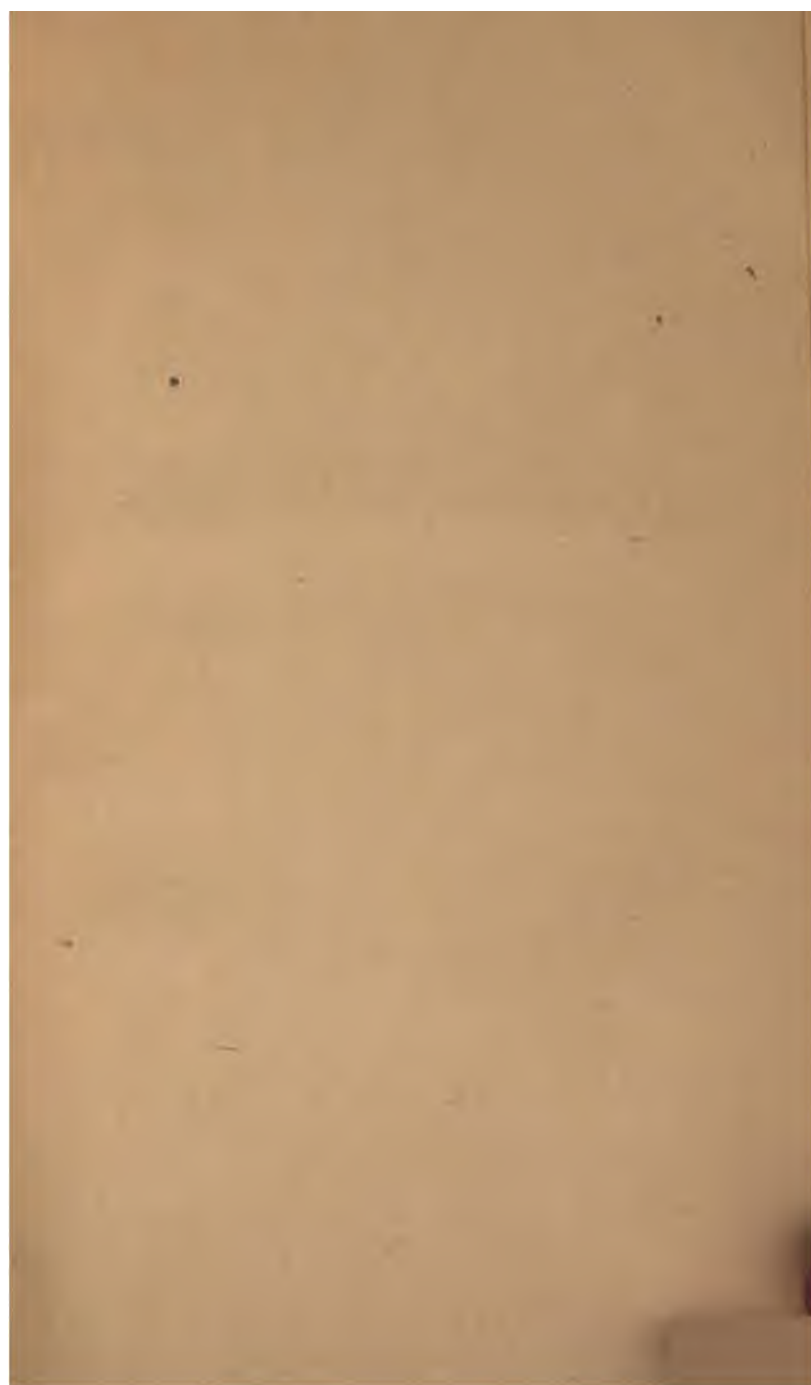
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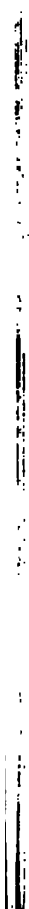
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